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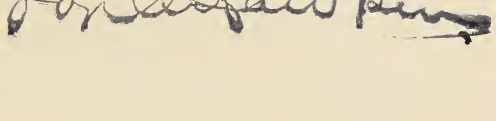

United States Department of Agriculture

BUREAU OF PLANT QUARANTINE

SERVICE AND REGULATORY ANNOUNCEMENTS

JULY–SEPTEMBER 1933

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QUARANTINE AND OTHER OFFICIAL ANNOUNCEMENTS

ANNOUNCEMENTS RELATING TO DUTCH ELM DISEASE

SECRETARY WALLACE CALLS HEARING SEPTEMBER 15 ON DUTCH ELM DISEASE

(Press notice)

AUGUST 30, 1933.

Secretary of Agriculture Wallace has announced that notice has been issued for a hearing, to be held in Washington, D.C., September 15, to consider whether steps should be taken to prevent further establishment of the Dutch elm disease in this country by placing under quarantine host materials likely to carry this disease from Europe.

Although the source of the recent outbreak of this disease in the environs of New York is still unknown, officials say the Department of Agriculture cannot disregard the possibility that the elm-disease fungus may have been brought into that area in imported parts of diseased elm trees. Within recent weeks a few shipments of elm logs from Europe have arrived at Atlantic ports, and though for each of these lots safeguards have been provided. it is believed that the whole problem demands immediate attention. In view of the prompt efforts being taken to eradicate the disease, the necessity for protecting the country against further introduction from abroad is regarded as important.

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADVISABILITY OF PROHIBITING OR RESTRICTING THE ENTRY OF ELM AND RELATED SPECIES OF TREES AND PARTS AND PRODUCTS THEREOF FROM EUROPE

AUGUST 29, 1933.

The Secretary of Agriculture has information that there exists on the continent of Europe an injurious disease, known as the Dutch elm disease, due to the fungus *Graphium ulmi* Schwarz, and that this disease, not now widely prevalent within or throughout the United States, may be introduced into this country with importations of plants, cuttings, seeds, logs, timber, lumber, or other wood products of all species of the family Ulmaceae, among which elms (*Ulmus* spp.) and zelkova or keyaki (*Zelkova* spp.) are known to be hosts of this fungus.

It appears necessary, therefore, to consider the advisability of prohibiting or restricting the entry of any or all parts or products of plants belonging to species of the family Ulmaceae from the continent of Europe.

Notice is, therefore, hereby given that, in accordance with the Plant Quarantine Act of August 20, 1912, as amended, a public hearing will be held before the Bureau of Plant Quarantine of the United States Department of Agriculture, in room 42-43 of the United States National Museum, Tenth Street and Constitution Avenue NW., Washington, D.C., at 10 a.m., September 15, 1933, in order that any person interested in the establishment of such prohibition or restriction may appear and be heard, either in person or by attorney.

H. A. WALLACE,
Secretary of Agriculture.

ANNOUNCEMENTS RELATING TO FRUIT AND VEGETABLE QUARANTINE (NO. 56)

AMENDMENT NO. 6 OF REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 56

Under authority conferred by the Plant Quarantine Act of August 20, 1912 (37 Stat. 315), as amended, it is ordered that regulation 2 of the Rules and Regulations Supplemental to Notice of Quarantine No. 56, which became effective November 1, 1923, as amended October 23. 1923, January 18. 1924, January 10, 1925, February 6, 1925, and July 15, 1932, be, and the same is hereby, further amended to read as follows:

REGULATION 2. RESTRICTIONS ON ENTRY OF FRUITS AND VEGETABLES

All importations of fruits and vegetables must be free from plants or portions of plants, as defined in regulation 1 (*b*).

Dried, cured, or processed fruits and vegetables, including dried products, cured figs, dates, and raisins, etc., nuts and dry beans, peas, etc., may be imported without permit or other compliance with these regulations: *Provided*, That any such articles may be made subject to entry only under permit and on compliance with the safeguards to be prescribed therein when it shall be determined by the Secretary of Agriculture that the condition of drying, curing, or processing to which they have been subjected may not entirely eliminate risk. Such determination with respect to any such articles shall become effective after due notice.

Except as restricted, as to certain countries and districts[1] by special quarantines and other orders now in force and by such restrictive orders as may

[1] See List of current quarantines and other restrictive orders and miscellaneous regulations, obtainable on request from the Bureau of Plant Quarantine.

hereafter be promulgated, the following fruits may be imported from all countries under permit and on compliance with these regulations: Bananas, pineapples, lemons, and sour limes. Grapes of the European or vinifera type and any vegetable, except as restricted by special quarantine as indicated above, may be imported from any country under permit and on compliance with these regulations, at such ports as shall be authorized in the permits, on presentation of evidence satisfactory to the United States Department of Agriculture that such grapes and vegetables are not attacked in the country of origin by injurious insects, including fruit and melon flies (Trypetidae), or that their importation from definite areas or districts under approved safeguards prescribed in the permits can be authorized without risk.

The following additions and exceptions are authorized for the countries concerned to the fruits and vegetables listed in the preceding paragraph: *Provided*, That as to such additions and exceptions, the issuance of permits may be conditioned on presentation of evidence satisfactory to the United States Department of Agriculture that such fruits and vegetables are not attacked in the country of origin by injurious insects, including fruit flies and melon flies; or that their importation from definite areas or districts under approved safeguards prescribed in the permits can be authorized without risk:

Commonwealth of Australia—States of Victoria, South Australia, and Tasmania.—Upon compliance with these regulations and under such additional conditions and safeguards as may be prescribed in the permits, all fruits from the States of Victoria, South Australia, and Tasmania may be permitted entry at Seattle, Wash., and Portland, Oreg., and at such other ports as may be specified in the permits.

New Zealand.—Upon compliance with these regulations fruits other than those listed in the second and third paragraphs of this regulation may be imported from New Zealand under such conditions and through such ports as may be designated in the permits.

Japan.—Upon compliance with the regulations under Quarantine No. 28, oranges of the mandarin class, including satsuma and tangerine varieties, may be imported from Japan through the port of Seattle and such other northern ports as may be specified in the permits.

Mexico.—Potatoes may be imported from Mexico upon compliance with the regulations issued under the order of December 22, 1913.

Argentina.—Upon compliance with these regulations, fruits other than those listed in the second and third paragraphs of this regulation may be imported from Argentina under such conditions and through such northern ports as may be designated in the permits.

Chile.—Upon compliance with these regulations, fruits other than those listed in the second and third paragraphs of this regulation may be imported from Chile under such conditions and through such northern ports as may be designated in the permits. Melons from Chile may be admitted at any port.

West Indies.—Upon compliance with these regulations all citrus fruits from the West Indies may be permitted entry at New York and at such other ports as may be designated in the permits.

Jamaica.—Entry of pineapples from Jamaica is restricted to the port of New York or such other northern ports as may be specified in the permits.

Canada.—Fruits and vegetables grown in the Dominion of Canada may be imported into the United States from Canada free from any restrictions whatsoever under these regulations.

General.—In addition to the fruits, the entry of which is provided for in the preceding paragraphs of this regulation, such specialties as hothouse-grown fruits or other special fruits, which can be accepted by the United States Department of Agriculture as free from risk of carrying injurious insects, including fruit flies (Trypetidae), may be imported under such conditions and through such ports as shall be designated in the permits.

This amendment shall be effective on and after August 1, 1933.

Done at the city of Washington this 25th day of July 1933.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL] R. G. TUGWELL,
Acting Secretary of Agriculture.

INSTRUCTIONS TO COLLECTORS OF CUSTOMS

T.D. 39792, PUBLISHING THE NOTICE OF QUARANTINE NO. 56, OF THE UNITED STATES DEPARTMENT OF AGRICULTURE, WITH REGULATIONS RELATING TO FRUIT AND VEGETABLES, AMENDED (T.D. 46591)

TREASURY DEPARTMENT,
OFFICE OF THE COMMISSIONER OF CUSTOMS,
Washington, D.C., August 14, 1933.

To Collectors of Customs and Others Concerned:

The appended copy of amendment no. 6 of regulations supplemental to Notice of Quarantine No. 56 (fruit and vegetable quarantine) issued by the Secretary of Agriculture, effective August 1, 1933, is published for the information and guidance of customs officers and others concerned.

FRANK DOW,
Acting Commissioner of Customs.

(Then follows the full text of the amendment.)

ANNOUNCEMENTS RELATING TO JAPANESE-BEETLE QUARANTINE (NO. 48)

JAPANESE-BEETLE CONFERENCE IN WASHINGTON, OCTOBER 24

(Press notice)

SEPTEMBER 12, 1933.

A conference to discuss this season's developments in the Japanese-beetle situation has been announced by Lee A. Strong, Chief of the Bureau of Plant Quarantine, Department of Agriculture. It will meet in the auditorium of the Interior Department Building, Eighteenth and F Streets NW., Washington, D.C., on October 24, at 10 a.m. This is one of a series of annual conferences and all interested in the Japanese-beetle-quarantine regulations or in possible changes in such regulations are invited to attend and to join in the discussion.

This annual Japanese-beetle conference will be held on the day before a discussion scheduled recently by the Bureau to consider modifications in the plant importation regulations issued under Federal Quarantine No. 37. The consecutive dates were arranged for the convenience of nurserymen and others who are interested in both subjects.

FRUITS AND VEGETABLES MAY BE SHIPPED THIS FALL WITHOUT JAPANESE-BEETLE CERTIFICATES ON AND AFTER SEPTEMBER 15

(Press notice)

SEPTEMBER 13, 1933.

The Secretary of Agriculture announced today (Sept. 13) that restrictions on the movement of fruits and vegetables under the Japanese-beetle-quarantine regulations will be removed for the season on and after Friday, September 15. The restrictions on cut flowers, however, remain until October 15. Under the quarantine regulations, certificates showing freedom from Japanese beetle are required on shipments of certain kinds of fruits and vegetables until October 15. The effect of the order is to release the fruits and vegetables from that requirement a month earlier than is provided in the regulations themselves.

The inspection of fruits and vegetables is necessary only during the period when the adult beetles are abundantly present and in active flight. There is no risk that such products will carry the Japanese beetle after this active period. During the last few days the Department's inspectors have found no beetles in fruits and vegetables.

There is still danger, however, that the adult beetles may be transported in cut flowers. Due to the prevailing cool evenings, the beetles have a tendency to crawl down into the flowers for protection. Therefore, the restrictions on the interstate movement of cut flowers and other portions of plants will remain in full force and effect until October 15, inclusive.

Restrictions on the movement of nursery, ornamental, and greenhouse stock and all other plants (except cut flowers and portions of plants without roots and incapable of propagation) are in force throughout the year and are not affected by this announcement.

REMOVAL OF JAPANESE-BEETLE QUARANTINE RESTRICTIONS ON THE INTERSTATE MOVEMENT OF FRUITS AND VEGETABLES

Since it has been determined that the active period of the Japanese beetle in its relation to fruits and vegetables has already ceased for the present season and that it is, therefore, safe to permit the unrestricted movement of the fruits and vegetables listed in regulation 5 of the rules and regulations (eleventh revision) supplemental to Notice of Quarantine No. 48 from the regulated area as defined in regulation 3 of said rules and regulations, it is ordered that all restrictions on the interstate movement of the articles referred to above are hereby removed on and after September 15, 1933. This order advances the termination of the restrictions as to fruits and vegetables provided for in regulation 5 from October 16 to September 15, 1933, and applies to this season only.

Done at the city of Washington this 13th day of September 1933.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ANNOUNCEMENT RELATING TO MEXICAN FRUIT-FLY QUARANTINE (NO. 64)

DEPARTMENT AUTHORIZES LENGTHENING OF NEXT SHIPPING SEASON FOR CITRUS FRUIT OF LOWER RIO GRANDE VALLEY

(Press notice)

The season for shipping citrus fruit under the Mexican fruit-fly quarantine regulations from the Texas counties of Willacy, Cameron, and Hidalgo, has been extended to include April 30, 1934, according to an announcement today by Lee A. Strong, Chief of the Bureau of Plant Quarantine of the United States Department of Agriculture, following a conference in Harlingen, Tex., with J. M. Del Curto, State entomologist, Texas State Department of Agriculture. Extension of the shipping season makes the grove clean-up requirements by the end of the season even more imperative, and quarantine officials anticipate the same cooperation heretofore extended in this work by growers of the lower Rio Grande Valley.

Messrs. Strong and Del Curto point out that both the Federal Department and the State Department of Agriculture desire to assist in every possible manner in the movement of the Texas citrus crop. At the same time there must be full appreciation of the responsibility to prevent the building up of infestation and spread of fruit fly, and it is hoped and believed that the growers will at all times realize the importance of full compliance with the clean-up regulations. Discovery of any infestation of the Mexican fruit fly will necessarily require immediate eradication and precautionary clean-up measures in any area which may be involved, they point out.

As to the beginning of the shipping season this fall, there was an effective clean-up at the close of last shipping season; two applications of spray have been made; the season seems somewhat advanced; and, therefore, to give the fullest possible marketing advantages and relying on the continued cooperation of the growers in clean-up and other precautionary measures, so far as the fruit-fly regulations are concerned, fruit may be certified on and after September 1, 1933.

[Above press notice was released at Harlingen, Tex., July 31, 1933.]

ANNOUNCEMENTS RELATING TO NURSERY STOCK, PLANT, AND SEED QUARANTINE (NO. 37)

INSTRUCTIONS TO COLLECTORS OF CUSTOMS

T.D. 43980, as Amended by T.D. 46431, Publishing a List of Names of Representatives of the Canadian Department of Agriculture Qualified to Inspect and Certify Plants, Further Amended (T.D. 46590)

Treasury Department,
Office of the Commissioner of Customs,
Washington, D.C., August 14, 1933.

To Collectors of Customs and Others Concerned:

The published list of official representatives of the Canadian Department of Agriculture, who are qualified and authorized to inspect and certify plants, nursery stock, and seeds for shipment from Canada to the United States in accordance with the rules and regulations supplemental to Quarantine No. 37 (U.S. Department of Agriculture), is amended by removing the name of W. H. Lyne and substituting the name of H. F. Olds, who has been designated as inspector in charge at Vancouver, B.C.

Frank Dow, *Acting Commissioner of Customs.*

B.P.Q.—354. August 15, 1933.

CONDITIONS GOVERNING THE ENTRY AND TREATMENT OF NARCISSUS-BULB IMPORTATIONS

Importations of narcissus bulbs are governed by the provisions of regulation 14 of Quarantine No. 37, the Nursery Stock, Plant, and Seed Quarantine. Each shipment of such bulbs must meet the conditions of entry as set forth in Quarantine No. 37 and in the special permit authorizing the shipment with respect to certification, marking, freedom from sand, soil, or earth, packing materials, inspection and disinfection, if necessary, for injurious insect pests and plant diseases, notice of arrival, etc. All such bulbs imported for propagation must be graded as to type and size before shipment from abroad, and the grades and the exact quantity of each indicated by varieties for each container on the true copy of the invoice required with each shipment. Run-of-the-field or ungraded bulbs will be refused entry.

Heretofore, in addition to the general conditions of entry, a prescribed hot-water treatment has been given all imported narcissus bulbs as an additional condition of entry; hereafter such bulbs will be inspected at the port designated in the permit (provided that mail importations of narcissus bulbs will be inspected at Washington, D.C., only) and, if found to be apparently free from injurious plant pests, will be released for forwarding to the importer without treatment.

If infested with the greater bulb fly, *Merodon equestris*, the bulbs shall be treated in accordance with the requirements prevailing for the interstate movement of bulbs so infested. Such bulbs may be (1) fumigated by exposure to calcium cyanide (slow evolving type containing 40 to 50 percent of pure calcium cyanide) at the rate of 16 ounces per 100 cubic feet of space for 4 hours at a temperature of 60° F. or more in an air-tight chamber of approved construction; (2) as an alternative, exposed to hydrocyanic acid gas produced by the use of 7 ounces of sodium cyanide (50 percent cyanogen), 10½ ounces of sulphuric acid (66° B.), and 14 ounces of water for 100 cubic feet of space under temperature and equipment conditions set forth above for the calcium cyanide fumigation; (3) they may also be treated by submersion in hot water held at a temperature of 110° to 111.5° for the entire period of 1 hour in an approved tank; or (4) by heating the bulbs to a temperature of 110° by means of moist conditioned air and holding that temperature for 2 hours, using apparatus approved for this treatment.

If infested with the bulb eelworm, *Tylenchus dipsaci*, the bulbs shall be treated at a plant approved for use during the current season, under the supervision of a representative of the Bureau of Plant Quarantine, by submersion for 3 hours in water held at a temperature of 110° F., or higher, the approved maximum being 111.5°. In the case of bulbs over 2 inches in diameter the treating period will be extended to 4 hours. In view of the fact

that the effectiveness of this treatment is greatly increased if bulbs which have been dried for more than 3 weeks are presoaked in cold water for 2 hours, the use of this desirable modification of the treatment is recommended. The use of a disinfectant to check subsequent infections of diseases such as basal rot is optional with the permittee. The disinfectant may be used either in the hot water or as an after-dip.

Further information regarding the treatments will be furnished upon request.

Shipments requiring treatment shall be held intact at the place of treatment until the Bureau's representative arrives. In the event infestation is not general but occurs in only one or more clearly distinguishable units, only those infested units shall be required to be treated. All bulbs of the same variety from one shipper to the same addressee will be considered as belonging to the same unit unless evidence is presented to show that certain cases of the lot came from a separate source in the country of origin and unless such cases are marked to indicate that fact. When 2 or more varieties are included in the same case, the entire case will be considered as 1 unit unless these varieties are completely separated from each other in tight containers which would prevent an intermingling of dirt and debris.

To prevent any unnecessary delay should treatment be required, the permittees should arrange in advance for facilities for giving any necessary treatments. Small lots of bulbs may be treated at the Inspection House of this Department in Washington, D.C.

A permittee may elect to refuse a shipment if found infested, in place of providing for the required treatment. If any permittee intends to follow that plan, he should notify this Bureau in advance of the arrival of the bulbs, stating whether such infested shipment is to be abandoned for destruction.

LEE A. STRONG,
Chief, Bureau of Plant Quarantine.

NOTE.—Other publications having to do with this general subject are:

Quarantine No. 37. Nursery Stock, Plant, and Seed Quarantine.

Circular B.P.Q.—340. Explanation of Provisions for Entry of Plants under Quarantine 37.

Circular P.Q.C.A.—324. Use of Disinfectants in Hot-Water Treatment of Narcissus Bulbs.

Circular B.P.Q.—337. Treatment and Pest Suppression Measures in Narcissus Plantings.

Circular B.P.Q.—341. Segregation, Labeling, and Utilization Requirements of Plants Imported under Special Permit for Propagation.

Circular B.P.Q.—353. Supplementary Administrative Instructions. Narcissus Treatment and Pest Suppression.

STRONG CALLS CONFERENCE ON IMPORTANT PLANT QUARANTINE

(Press notice)

AUGUST 22, 1933.

Called to "reexamine the underlying principles involved in the interpretation and enforcement" of the Nursery Stock, Plant, and Seed Quarantine No. 37, a public conference will be held at 10 a.m. October 25 by the Bureau of Plant Quarantine, United States Department of Agriculture. In announcing the conference, Lee A. Strong, Chief of the Bureau, referred to his statement issued July 20 in which he reviewed the legislative and administrative history of this quarantine, and indicated that the Department now is ready to give serious consideration to modification and liberalization of this regulation. The conference will meet in the auditorium of the Interior Department Building in Washington.

In his statement a month ago Mr. Strong said: "After a careful and extended study of this whole problem, I find myself seriously questioning the need for, and the justice of, the procedure we are following. Inspection methods have been greatly improved and our scientific knowledge of foreign pests and diseases has increased. I feel that greater confidence can be placed in the efficacy of inspection of plant material at the time of arrival." In the formal announcement of the conference Mr. Strong threw open the door for discussion of all questions pertaining to this quarantine and mentioned specific subjects for consideration.

NOTICE OF PUBLIC CONFERENCE TO CONSIDER CERTAIN CHANGES WITH RESPECT TO THE ADMINISTRATION OF NURSERY STOCK, PLANT, AND SEED QUARANTINE NO. 37

AUGUST 21, 1933.

Notice is hereby given that a public conference will be held by the Bureau of Plant Quarantine in the auditorium of the Interior Department Building, Eighteenth and F Streets, NW., Washington, D.C., at 10 a.m., October 25, 1933, at which consideration will be given to the advisability of modifying certain features with respect to the enforcement of the Nursery Stock, Plant, and Seed Quarantine No. 37.

As indicated in a statement issued July 20, 1933, it now seems advisable to reexamine the underlying principles involved in the interpretation and enforcement of the quarantine in question. At this conference it is specifically proposed to give consideration to the following subjects in reference to the importation of plants under permit: The elimination of consideration of the availability of plants in this country; limitation to be placed on the number of plants which may be imported by reason of facilities for adequate inspection; value of considering horticultural qualifications of the applicants in the issuance of permits; desirability of continuing to hold certain plants for 2 or more years before release; the advisability of providing for the inspection of imported plants at New York and certain other ports of entry rather than shipping them to Washington as at present; and such other pertinent items as may be brought up.

Any person interested in the changes under consideration may appear at this public conference and be heard either in person or by attorney.

LEE A. STRONG, *Chief of Bureau.*

ANNOUNCEMENTS RELATING TO PINK BOLLWORM QUARANTINE (NO. 52)

REVISION OF REGULATIONS

INTRODUCTORY NOTE

The following revision of the pink-bollworm-quarantine regulations makes no addition to the areas formerly under regulation. The regulated areas are, however, now divided into heavily infested areas and lightly infested areas. The heavily infested areas consist of the counties of Brewster, Culberson, Jeff Davis, Presidio, Terrell, and a portion of Hudspeth in the State of Texas. The remaining counties in Texas, as well as those under regulation in Arizona, Florida, and New Mexico, are designated as lightly infested areas. The measures of control and prevention of spread of the pink bollworm remain substantially unchanged.

SUMMARY

The regulated areas under this revision include 5 counties of southern Arizona, 6 counties of north-central Florida, 7 counties of southern New Mexico, and 10 counties of western Texas. Of this area, 5 counties and part of an additional county of Texas are designated as heavily infested and the other areas as lightly infested. (See regulation 3.)

No stalks, bolls, or other parts of either cultivated or wild cotton plants and no gin waste are allowed to be transported interstate from any regulated area and no permits will be issued for such movement, except that the local transportation of gin waste between regulated areas is authorized after freezing weather starts. (See regulation 5.)

Seed cotton must not be transported interstate from any regulated area, except between contiguous regulated areas for ginning. (See regulation 6.)

Cottonseed, cotton lint, cottonseed hulls, cake, and meal, and bagging, wrappers, and containers which have been used for cotton products must not be transported interstate from any regulated area except under permit. Cottonseed produced in the heavily infested area must not be moved interstate therefrom

and no permits will be issued for such movement. (For the conditions governing the issuance of permits, see regulations 7 to 12, and 15.)

Railway cars, boats, and other vehicles, farm household goods, farm equipment, and other articles, must not be moved interstate from regulated areas unless free from contamination with cotton and cotton products. (See regulation 13.)

Permits are required to accompany the waybills covering shipments of restricted articles, or in the case of highway vehicles, they must accompany the vehicle. (See regulation 15.)

To secure permits, address the local inspector or the Bureau of Plant Quarantine, 521 Avenue A, San Antonio, Tex.

LEE A. STRONG,
Chief, Bureau of Plant Quarantine.

NOTICE OF QUARANTINE NO. 52 (REVISED)

(Approved Oct. 26, 1932; effective Oct. 29, 1932)

I, C. F. Marvin, Acting Secretary of Agriculture. have determined that it is necessary to quarantine the States of Arizona, Florida, New Mexico, and Texas to prevent the spread of the pink bollworm (*Pectinophora gossypiella* Saunders), a dangerous insect new to and not heretofore widely prevalent or distributed within and throughout the United States.

Now, therefore, under the authority conferred by section 8 of the Plant Quarantine Act of August 20, 1912 (37 Stat. 315), as amended by the act of Congress approved March 4, 1917 (39 Stat. 1134, 1165), and having duly given the public hearing as required thereby, I do quarantine the said States of Arizona, Florida, New Mexico, and Texas, effective on and after October 29, 1932. Hereafter, under the authority of said act of August 20, 1912, amended as aforesaid, (1) cotton, wild cotton, including all parts of either cotton or wild cotton plants, seed cotton, cotton lint, linters, and all other forms of unmanufactured cotton lint, gin waste, cottonseed, cottonseed hulls, cottonseed cake and meal; (2) bagging and other containers and wrappers of cotton and cotton products; (3) railway cars, boats, and other vehicles which have been used in conveying cotton or cotton products or which are fouled with such products; (4) hay and other farm products; and (5) farm household goods, farm equipment, and, if contaminated with cotton, any other articles, shall not be shipped, offered for shipment to a common carrier, received for transportation or transported by a common carrier, or carried, transported, moved, or allowed to be moved from the States of Arizona, Florida, New Mexico, or Texas into or through any other State or Territory or District of the United States in manner or method or under conditions other than those prescribed in the rules and regulations hereinafter made and amendments thereto: *Provided*, That the restrictions of this quarantine and of the rules and regulations supplemental thereto may be limited to the areas in a quarantined State now, or which may be hereafter, designated by the Secretary of Agriculture as regulated areas when, in the judgment of the Secretary of Agriculture, the enforcement of the aforesaid rules and regulations as to such regulated areas shall be adequate to prevent the spread of the pink bollworm: *Provided further*, That such limitation shall be conditioned upon the said State providing for and enforcing such control measures with respect to such regulated areas as, in the judgment of the Secretary of Agriculture, shall be deemed adequate to prevent the spread of the pink bollworm therefrom to other parts of the State.

Done at the city of Washington this 26th day of October 1932.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL]

C. F. MARVIN,
Acting Secretary of Agriculture.

23445—33——2

REVISED RULES AND REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 52

(Approved Sept. 19, 1933; effective Sept. 19, 1933)

Regulation 1. Definitions

For the purpose of these regulations the following words, names, and terms shall be construed, respectively, to mean:

(*a*) *Pink bollworm.*—The insect known as the pink bollworm of cotton (*Pectinophora gossypiella* Saunders), in any stage of development.

(*b*) *Cotton and cotton products.*—Cotton, wild cotton, including all parts of cotton or wild cotton plants (plants of any species of the genera *Gossypium* and *Thurberia*); seed cotton; cotton lint and linters, including all forms of unmanufactured cotton lint and linters; gin waste; cottonseed; cottonseed hulls, cake, and meal.

(*c*) *Lint.*—All forms of unmanufactured fiber produced from seed cotton.

(*d*) *Linters.*—All forms of unmanufactured fiber produced from cottonseed.

(*e*) *Sterilized seed.*—Cottonseed which has been sterilized as a part of the continuous process of ginning at a temperature of not less than 145° F. in an approved plant, under the supervision of an inspector, for such a period and in such manner and method as is authorized by the Bureau of Plant Quarantine.

(*f*) *Inspector.*—An inspector of the United States Department of Agriculture.

(*g*) *Moved or allowed to be moved interstate.*—Shipped, offered for shipment to a common carrier, received for transportation or transported by a common carrier, or carried, transported, moved, or allowed to be moved fom one State or Territory or District of the United States into or through any other State or Territory or District.

Regulation 2. Limitation of Restrictions to Regulated Areas

Conditioned upon the compliance on the part of the State concerned with the provisos to Notice of Quarantine No. 52 (revised), the restrictions provided for in these regulations on the interstate movement of the articles enumerated in said notice of quarantine will be limited to such articles moving from the areas in such State now or hereafter designated by the Secretary of Agriculture as regulated areas: *Provided,* That restricted articles may be moved interstate without permit from an area not under regulation through a regulated area when such movement is on a through bill of lading.

Regulation 3. Regulated Areas; Heavily and Lightly Infested Areas

REGULATED AREAS

In accordance with the provisos to Notice of Quarantine No. 52 (revised), the Secretary of Agriculture designates as regulated areas, for the purpose of these regulations, the following counties in Arizona, Florida, New Mexico, and Texas, including all cities, towns, townships, and other political subdivisions within their limits:

Arizona area.—The counties of Cochise, Graham, Greenlee, Maricopa, and Pinal.

Florida area.—The counties of Alachua, Baker, Bradford, Columbia, Gilchrist, and Union.

New Mexico area.—The counties of Chaves, Dona Ana, Eddy, Grant, Hidalgo, Luna, and Otero.

Texas area.—The counties of Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, Pecos, Presidio, Reeves, Terrell, and Ward.

Heavily Infested Areas

Of the regulated areas, the following counties and parts of counties are hereby designated as heavily infested within the meaning of these regulations: The counties of Brewster, Culberson, Jeff Davis, Presidio, and Terrell, in the State of Texas, and all of Hudspeth County in the same State except that part of the northwest corner of said county lying north and west of a ridge of desert land extending from the banks of the Rio Grande northeasterly through the desert immediately west of the town of McNary, such ridge being an extension of the northwest boundary line of section 11, block 65½.

Lightly Infested Areas

The following areas are designated as lightly infested: The counties of Cochise, Graham, Greenlee, Maricopa, and Pinal, in Arizona [2]; the counties of Alachua, Baker, Bradford, Columbia, Gilchrist, and Union, in Florida; the counties of Chaves, Dona Ana, Eddy, Grant, Hidalgo, Luna, and Otero, in New Mexico; the entire counties of El Paso, Pecos, Reeves, and Ward, in Texas, and that part of the northwest corner of Hudspeth County, Tex., lying north and west of a ridge of desert land extending from the banks of the Rio Grande northeasterly through the desert immediately west of the town of McNary, such ridge being an extension of the northwest boundary line of section 11, block 65½.

REGULATION 4. EXTENSION OR REDUCTION OF REGULATED AREAS

The regulated areas designated in regulation 3 may be extended or reduced as may be found advisable by the Secretary of Agriculture. Due notice of any extension or reduction and the areas affected thereby will be given in writing to the transportation companies doing business in or through the State in which such areas are located, and by publication in newspapers selected by the Secretary of Agriculture within the States in which the areas affected are located.

REGULATION 5. STALKS, BOLLS, GIN WASTE, ETC.

Stalks, bolls, and other parts of cotton or wild cotton plants (plants of any species of the genera *Gossypium* or *Thurberia*), and gin waste shall not be moved or allowed to be moved interstate from a regulated area, except that gin waste may be moved interstate without permit from a gin in a lightly infested area [3] to farms in another regulated area within the contiguous ginning territory thereof, on condition that in the judgment of the inspector such movement would not, owing to the arrival of freezing weather, increase the risk of spread of the pink bollworm.

REGULATION 6. SEED COTTON

Seed cotton (including grabbots) shall not be moved or allowed to be moved interstate from regulated areas to nonregulated territory, but, for the purpose of ginning, seed cotton may be moved [3] interstate without permit from a lightly infested area to a contiguous regulated area.

REGULATION 7. COTTONSEED

HEAVILY INFESTED AREAS

Cottonseed produced within a heavily infested area shall not be moved or allowed to be moved interstate from that area, and no permit will be issued for such movement.

LIGHTLY INFESTED AREAS

Cottonseed produced in a lightly infested area shall not be moved or allowed to be moved interstate therefrom unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement of sterilized seed produced in a lightly infested area on condition that it either is to be moved to another regulated area [3] without passing through any territory not regulated under this quarantine or under the Federal quarantine on account of the Thurberia weevil; or is a sample to be moved to an approved laboratory in nonregulated territory for analysis; or is a sample to be moved for some other approved purpose.

[2] Part of the lightly infested area in Arizona is regulated on account of the Thurberia weevil under Quarantine No. 61, and shipments therefrom must comply with the requirements of that quarantine.

[3] Except from the area in Arizona regulated on account of the Thurberia weevil (Quarantine No. 61).

Permits may also be issued for the interstate movement of sterilized seed produced in a lightly infested area to an authorized oil mill in nonregulated territory for crushing; as one of the conditions for such authorization, oil mills in nonregulated territory must agree to maintain such safeguards against the spread of infestation, and to comply with such restrictions on the subsequent movement of the linters and other products manufactured from the seed concerned as may be required by the Bureau of Plant Quarantine.

Permits may be issued for the interstate movement of seed from lightly infested areas to any destination on condition that it has been given a special heat treatment at 145° F. maintained under approved conditions for a period of at least 1 hour and subsequently has been protected from contamination, or has been given such other treatment as may later be approved by the Bureau of Plant Quarantine.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of cottonseed from lightly infested areas on such conditions as may be prescribed by that Bureau.

COTTONSEED PRODUCED OUTSIDE THE REGULATED AREAS

Cottonseed produced outside of but brought within a regulated area may be moved interstate from such area under permit on condition that while in the area the seed has been protected from contamination in a manner satisfactory to the inspector.

Regulation 8. Lint and Samples

Lint and samples thereof shall not be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement of lint or samples thereof, produced in a regulated area, on condition that the said lint was produced in a gin operated, as to seed sterilization and the prevention of contamination, to the satisfaction of the inspector, and on compliance with the following additional requirements which shall be carried out under the supervision of an inspector and in manner and by method approved by the Bureau of Plant Quarantine:

Baled lint produced in a heavily infested area (regardless of destination) must be given both vacuum fumigation and either compression or roller treatment, unless and until the said Bureau shall approve some other treatment or treatments for the purpose; baled lint produced in a lightly infested area to be moved to nonregulated territory must be either fumigated under vacuum, or compressed, or roller treated, or given such other treatment as may later be approved by the said Bureau; baled lint and samples thereof produced in a lightly infested area may be moved interstate under permit to another regulated area [4] without fumigation or other treatment on condition that the material will not pass through any cotton-growing territory outside the areas regulated under this quarantine or the Federal quarantine on account of the Thurberia weevil; samples (except when moved as above from a lightly infested area to another regulated area), whether produced in a lightly infested or heavily infested area, must be either fumigated, inspected, or otherwise treated as may be required by the inspector.

Permits may be issued for the interstate movement of baled lint or samples thereof grown outside of but brought within a regulated area and to be moved therefrom, on the furnishing of evidence satisfactory to the inspector that the said materials have been protected from contamination.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of lint from the regulated areas on such conditions as may be prescribed by that Bureau.

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[4] Except from the area in Arizona regulated on account of the Thurberia weevil (Quarantine No. 61).

Regulation 9. Linters and Samples

Linters and samples thereof shall not be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement of linters or samples thereof, produced in a regulated area on condition that said linters were produced from sterilized seed and protected from contamination to the satisfaction of the inspector, and on compliance with the following additional requirements which shall be carried out under the supervision of an inspector and in manner and by method approved by the Bureau of Plant Quarantine:

Baled linters produced in a heavily infested area (regardless of destination) must be either fumigated under vacuum, or roller treated, or given such other treatment as may later be approved by the said Bureau; baled linters produced in a lightly infested area to be shipped to nonregulated territory must be either fumigated under vacuum, or compressed, or roller treated, or given such other treatment as may later be approved by the said Bureau; baled linters and samples thereof produced in a lightly infested area may be shipped interstate under permit to another regulated area [5] without fumigation or other treatment on condition that the material will not pass through any cotton-growing territory outside the areas regulated under this quarantine or the Federal quarantine on account of the Thurberia weevil; samples (except when moved as above from a lightly infested area to another regulated area), whether produced in a lightly infested or heavily infested area, must be either fumigated, inspected, or otherwise treated as may be required by the inspector.

Permits may be issued for the interstate movement of baled linters or samples thereof grown outside of but brought within a regulated area and to be moved therefrom on the furnishing of evidence satisfactory to the inspector that such materials have been protected from contamination.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of linters from the regulated areas on such conditions as may be prescribed by that Bureau.

Regulation 10. Mill Waste, Unbaled Lint and Linters, and Other Forms of Unmanufactured Lint and Linters

No form of cotton lint or linters shall be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture, except that no permit is required for the interstate transportation of materials which have been woven or spun from cotton lint or linters and are uncontaminated with other cotton or cotton products, nor for the interstate transportation of mattresses, pillows, cushions, or upholstery, which have been commercially manufactured in compliance with the pink-bollworm regulations of the State concerned and in which any unwoven lint or linters used are completely enclosed in the finished product.

Permits may be issued authorizing the interstate movement from a regulated area of mill waste and of all other forms of unmanufactured cotton lint or linters for which permits are required under these regulations and which are not specifically covered in regulations 8 and 9, on condition that the material has been fumigated and compressed or roller treated, or has been given such other treatment or handling as will, in the judgment of the Bureau, eliminate risk of spread of the pink bollworm.

Regulation 11. Cottonseed Hulls, Cake, and Meal

No cottonseed hulls, cake, or meal shall be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement from a heavily infested area to any destination of cottonseed hulls obtained from sterilized cottonseed

[5] Except from the area in Arizona regulated on account of the Thurberia weevil (Quarantine No. 61).

and subsequently protected from contamination to the satisfaction of the inspector on condition that they are given such additional treatment as may be required by the inspector. Permits may be issued for the interstate movement from a lightly infested area [6] of cottonseed hulls produced from sterilized cottonseed and subsequently protected from contamination to the satisfaction of the inspector on condition that they are either to be moved to another regulated area without passing through any territory not regulated under this quarantine or under the Federal quarantine on account of the Thurberia weevil, or are to be moved to nonregulated territory and have been given such additional treatment as may be required by the inspector.

Permits may be issued for the interstate movement from a regulated area to any destination of cottonseed cake and meal produced either from sterilized cottonseed or from cottonseed obtained from nonregulated territory, on condition that the cake and meal have been protected against subsequent contamination with cottonseed to the satisfaction of the inspector.

Regulation 12. Bagging and Other Wrappers and Containers

Bagging and other wrappers and containers which have been used in connection with or which are contaminated with cotton or cotton products, shall not be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture. Permits may be issued on condition that such bagging or other wrappers or containers have been cleaned or treated to the satisfaction of the inspector.

Regulation 13. Cars, Boats, Vehicles, Household Goods, and Equipment

Railway cars, boats, and other vehicles which have been used in conveying cotton or cotton products or which are fouled with such products, and farm household goods, farm equipment, and other articles, if contaminated with cotton or cotton products, shall not be moved or allowed to be moved interstate from a regulated area until they have been thoroughly cleaned or treated to the satisfaction of the inspector. No permit is required for the movements allowed under this regulation.

Regulation 14. Hay and Other Farm Products; Cottonseed Oil

Hay and other farm products the interstate movement of which has not been specifically restricted or provided for elsewhere in these regulations, and cottonseed oil, may be moved interstate without permit or other restriction until further notice.

Regulation 15. General Permit Provisions; Marking and Labeling; Storage, Cartage, and Labor Costs

To obtain permits under these regulations, application should be made either to the nearest local inspector, or to the Bureau of Plant Quarantine, 521 Avenue A, San Antonio, Tex.

Permits may specify a destination point or a limited destination area for the shipment, and, in that event, the material concerned shall not be moved or allowed to be moved interstate, directly or indirectly, to destinations other than those specified in such permit.

Copies of the permits required under these regulations shall be attached to the articles or to the waybills or other shipping papers which accompany the shipment. In the case of movement by a road vehicle, copies of the permit shall accompany the vehicle. The products or articles so moved shall bear such marking and labeling as may be necessary, in the judgment of the inspector, to identify the material.

All charges for storage, cartage, and labor, incident to inspection, other than the services of inspectors, shall be paid by the shipper.

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[6] Except from the area in Arizona regulated on account of the Thurberia weevil (Quarantine No. 61).

REGULATION 16. SHIPMENTS BY THE UNITED STATES DEPARTMENT OF AGRICULTURE

Products and articles subject to restriction in these regulations may be moved interstate by the United States Department of Agriculture for experimental or scientific purposes, on such conditions and under such safeguards as may be prescribed by the Bureau of Plant Quarantine. The container of articles so moved shall bear, securely attached to the outside thereof, an identifying tag from the Bureau of Plant Quarantine showing compliance with such conditions.

These rules and regulations shall be effective on and after September 19, 1933, and shall supersede on that date the rules and regulations issued under Notice of Quarantine No. 52 (revised), on October 26, 1932, as amended to date.

Done at the city of Washington this 19th day of September 1933.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL]

C. F. MARVIN,
Acting Secretary of Agriculture.

[Copies of foregoing revision sent to all common carriers doing business in or through the regulated area.]

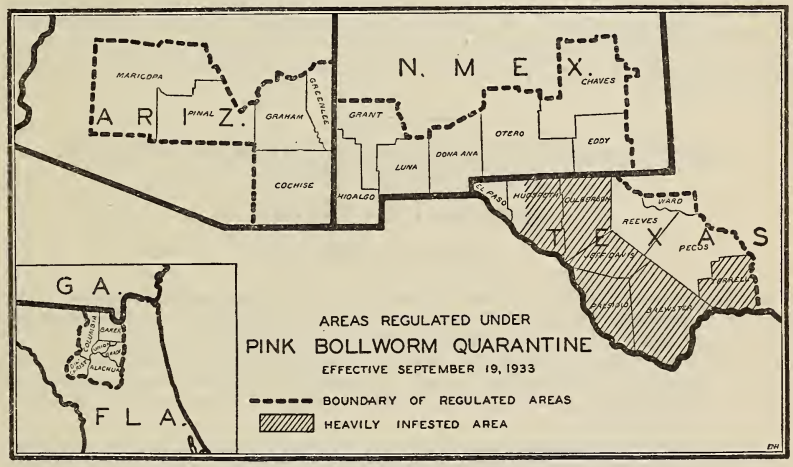

FIGURE 1

NOTICE TO GENERAL PUBLIC THROUGH NEWSPAPERS

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT QUARANTINE,
Washington, D.C., September 19, 1933.

Notice is hereby given that the Secretary of Agriculture, under authority conferred on him by the plant quarantine act of August 20, 1912 (37 Stat. 315), as amended, has promulgated a revision of the rules and regulations to Notice of Quarantine No. 52 (revised), on account of the pink bollworm, effective September 19, 1933. Under this revision the regulated areas include 5 counties of southern Arizona, 6 counties of north-central Florida, 7 counties of southern New Mexico, and 10 counties of western Texas. Various changes with regard to the handling and issuance of permits, of interest to growers and shippers of cotton and cotton products, have been made in the revision. Copies of said revision may be obtained from the Bureau of Plant Quarantine, United States Department of Agriculture, Washington, D.C.

C. F. MARVIN,
Acting Secretary of Agriculture.

[Published in the following newspapers: The Republican, Phoenix, Ariz., Sept. 26, 1933; the Florida Times-Union, Jacksonville, Fla., Sept. 26, 1933; the New Mexico State Tribune, Albuquerque, N.Mex., Sept. 26, 1933; the El Paso Post, El Paso, Tex., Sept. 25, 1933.]

CAMPAIGN AGAINST PINK BOLLWORM STARTED IN COTTON FIELDS OF SOUTH

(Press notice)

SEPTEMBER 25, 1933.

The United States Department of Agriculture today concentrated its facilities for inspecting cotton-gin trash in the area around Enigma, Ga., where plant quarantine inspectors last week found pink bollworms during a routine inspection of gin trash. An intensive inspection of adjacent fields is also under way. Prompt extermination measures will be taken against any additional infestation discovered.

This is the first time in 12 years that the pink bollworm has appeared in the main Cotton Belt of the United States, says Lee A. Strong, Chief of the Bureau of Plant Quarantine. Clean cultivation of the fields and sterilization of the seed are among the control measures advocated by the Department. After the cotton is picked every bit of cotton plant and debris in an infested field must be pulled out, raked up, and burned. The seeds, in which the bollworm passes part of its life cycle, must be sterilized. In this way infestations have been stamped out over thousands of square miles in several cotton-growing States.

Annual inspections of gin trash disclose any incipient infestation of pink bollworms, Mr. Strong says, and make it possible to take proper control measures before the insect can build up a large population. A light infestation was discovered by such an examination last year in Florida, he adds, and, as a result of the control measures immediately taken, no infestation has been found there this year.

ANNOUNCEMENTS RELATING TO THURBERIA-WEEVIL QUARANTINE (NO. 61)

REVISION OF REGULATIONS

INTRODUCTORY NOTE

The following revision of the Thurberia-weevil-quarantine regulations is issued to authorize the use of various improved treatments and other safeguards that have been developed by the Department in recent years. The changes in every case provide for the issuance of permits for interstate shipments on conditions with which it will be simpler and less expensive to comply than those previously required, or under which a wider market for cotton products is authorized.

Changes include provisions under which cottonseed given a special heat treatment of 145° F. for 1 hour is authorized shipment under permit to any destination; baled cotton lint may be either fumigated under vacuum, or compressed, or roller treated, instead of having to be both compressed and fumigated as heretofore; and cottonseed hulls may be shipped to nonregulated territory on the application of such special treatment as may be required by the inspector.

SUMMARY

The regulated areas under this quarantine include Cochise and Santa Cruz Counties, and parts of Graham, Pima, and Pinal Counties in Arizona. (See regulation 3.)

No Thurberia plants or parts thereof shall be moved or allowed to be moved interstate from any point in Arizona, and no permit will be issued for such movement. (See regulation 5.)

No seed cotton, stalks, bolls, or other parts of the cotton plant, or gin waste, shall be moved or allowed to be moved interstate from a regulated area, and no permit will be issued for such movement. (Regulation 5.)

Cotton lint, linters, cottonseed, cottonseed hulls, cake, and meal, and bagging, wrappers and containers which have been used for cotton products must not be transported interstate from the regulated area except under permit. (For conditions governing the issuance of permits see regulations 6 to 11 and 14.)

Railway cars, boats, and other vehicles, farm household goods, farm equipment, and other articles must not be moved interstate from a regulated area

unless free from contamination with cotton and cotton products. (See regulation 12.)

Permits are required to accompany the waybills covering shipments of restricted articles, or in the case of highway vehicles they must accompany the vehicle.

To secure permits apply to the nearest local inspector or address the Bureau of Plant Quarantine, 521 Avenue A, San Antonio, Tex.

LEE A. STRONG,
Chief, Bureau of Plant Quarantine.

NOTICE OF QUARANTINE NO. 61 (REVISED)

(Effective on and after Aug. 1, 1927)

I, Renick W. Dunlap, Acting Secretary of Agriculture, have determined that it is necessary to quarantine the State of Arizona to prevent the spread of the Thurberia weevil (*Anthonomus grandis thurberiae* Pierce), a dangerous insect not heretofore widely prevalent or distributed within and throughout the United States.

Now, therefore, under the authority conferred by section 8 of the Plant Quarantine Act of August 20, 1912 (37 Stat. 315), as amended by the act of Congress approved March 4, 1917 (39 Stat. 1134, 1165), and having duly given the public hearing as required thereby, I do quarantine the said State of Arizona, effective on and after August 1, 1927. Hereafter, under the authority of said act of August 20, 1912, amended as aforesaid (1) Thurberia, including all parts of the plant; (2) cotton, including all parts of the plant, seed cotton, cotton lint, linters, and all other forms of unmanufactured cotton lint, gin waste, cottonseed, cottonseed hulls, cottonseed cake and meal; (3) bagging and other containers and wrappers of cotton and cotton products; (4) railway cars, boats, and other vehicles which have been used in conveying cotton and cotton products or which are fouled with such products; (5) hay and other farm products; and (6) farm household goods, farm equipment, and, if contaminated with cotton, any other articles, shall not be shipped, offered for shipment to a common carrier, received for transportation or transported by a common carrier, or carried, transported, moved, or allowed to be moved from the State of Arizona into or through any other State or Territory or District of the United States in manner or method or under conditions other than those prescribed in the rules and regulations hereinafter made and amendments thereto: *Provided*, That the restrictions of this quarantine and of the rules and regulations supplemental thereto may be limited to the areas in the State of Arizona now, or which may be hereafter, designated by the Secretary of Agriculture as regulated areas when, in the judgment of the Secretary of Agriculture, the enforcement of the aforesaid rules and regulations as to such regulated areas shall be adequate to prevent the spread of the Thurberia weevil: *Provided further*, That such limitation shall be conditioned upon the said State providing for and enforcing such control measures with respect to such regulated areas as in the judgment of the Secretary of Agriculture shall be deemed adequate to prevent the spread of the Thurberia weevil therefrom to other parts of the State.

Done at the city of Washington this 9th day of July 1927.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL] RENICK W. DUNLAP.
Acting Secretary of Agriculture.

REVISED RULES AND REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 61

(Approved Sept. 30, 1933; effective Oct. 2, 1933)

REGULATION 1. DEFINITIONS

For the purpose of these regulations the following words, names, and terms shall be construed, respectively, to mean:

(*a*) *Thurberia weevil.*—The insect known as the Thurberia weevil (*Anthonomus grandis thurberiae* Pierce), in any stage of development.

(*b*) *Cotton and cotton products.*—Cotton, wild cotton, including all parts of cotton or wild cotton plants (plants of any species of the genera *Gossypium* and *Thurberia*); seed cotton; cotton lint and linters, including all forms of unmanufactured cotton lint and linters; gin waste; cottonseed; cottonseed hulls, cake, and meal.

(*c*) *Lint.*—All forms of unmanufactured fiber produced from seed cotton.

(*d*) *Linters.*—All forms of unmanufactured fiber produced from cottonseed.

(*e*) *Sterilized seed.*—Cottonseed which has been sterilized as a part of the continuous process of ginning at a temperature of not less than 145° F. in an approved plant, under the supervision of an inspector, for such a period and in such manner and method as is authorized by the Bureau of Plant Quarantine.

(*f*) *Inspector.*—An inspector of the United States Department of Agriculture.

(*g*) *Moved or allowed to be moved interstate.*—Shipped, offered for shipment to a common carrier, received for transportation or transported by a common carrier, or carried, transported, moved, or allowed to be moved from one State or Territory or District of the United States into or through any other State or Territory or District.

Regulation 2. Limitation of Restrictions to Regulated Areas

Conditioned upon the compliance on the part of the State of Arizona with the provisos in Notice of Quarantine No. 61 (revised), the restrictions provided for in these regulations on the interstate movement of the articles enumerated in said notice of quarantine, except as to Thurberia (see regulation 5), will be limited to such articles when moving from the areas in the State of Arizona now or hereafter designated by the Secretary of Agriculture as regulated areas: *Provided*, That, except as to Thurberia (see regulation 5), the atricles enumerated in said notice of quarantine may move interstate from an area not under regulation through a regulated area when such movement is on a through bill of lading.

Regulation 3. Regulated Area

In accordance with the provisos to Notice of Quarantine No. 61 (revised) the Secretary of Agriculture designates as regulated area the counties, or portions thereof, of Graham, Cochise, Santa Cruz, Pima, and Pinal, of the State of Arizona, embraced within the following-described boundary line, including all cities, towns, townships, and other political subdivisions within their limits:

Beginning at the most southeasterly corner of Greenlee County; thence westerly along the most southerly line of said county to the most southwesterly corner of said county; thence northwesterly along the county line of Greenlee and Graham Counties to the point where the township line between township 10 south and township 11 south as surveyed, or as would be if surveyed, intersects, or would intersect, the county line between Graham and Greenlee Counties; thence west along the said township line between township 10 south and township 11 south as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the line between the townships in range 23 east and range 24 east; thence north along the township line between the townships in range 23 east and range 24 east as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the township line between township 6 south and township 7 south; thence west along the said township line between township 6 south and township 7 south as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the line between the townships in range 8 east and range 9 east; thence south along the township line between the townships in range 8 east and range 9 east as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the township line between township 8 south and township 9 south; thence west along the township line between township 8 south and township 9 south as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the line between the townships in range 5 east and range 6 east; thence south along the township line between the townships in range 5 east and range 6 east as surveyed, or as would be if surveyed, to the point where the said township line intersects, or would intersect, the boundary line between Pima County and the Republic of Mexico; thence southeasterly and easterly

along the boundary line between the State of Arizona and the Republic of Mexico to the point where the said boundary line intersects the boundary line between the States of New Mexico and Arizona; thence northerly along the boundary line between the States of New Mexico and Arizona to the point of beginning.

All townships, township lines, and ranges referred to in the above-described area are of the Gila and Salt River base and meridian.

Regulation 4. Extension or Reduction of Regulated Areas

The regulated areas may be extended or reduced as may be found advisable by the Secretary of Agriculture. Due notice of any extension or reduction and the areas affected thereby will be given in writing to the transportation companies doing business in or through the State of Arizona and by publication in one or more newspapers selected by the Secretary of Agriculture within the said State.

Regulation 5. Prohibited Movement

No Thurberia plants or parts thereof shall be moved or allowed to be moved interstate from any point in Arizona, and no permit will be issued for such movement.

No seed cotton, grabbots, or stalks, bolls, or other parts of the cotton plant, or gin waste shall be moved or allowed to be moved interstate from a regulated area, and no permit will be issued for such movement.

Regulation 6. Cottonseed

Cottonseed shall not be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for such movement of samples of sterilized seed to an approved laboratory in nonregulated territory for analysis, or of samples to be moved for some other approved purpose.

Permits may also be issued for the interstate movement of sterilized seed to an authorized oil mill in nonregulated territory for crushing; as one of the conditions for such authorization, oil mills in such nonregulated territory must agree to maintain such safeguards against the spread of infestation and to comply with such restrictions on the subsequent movement of the linters and other products manufactured from the seed concerned as may be required by the Bureau of Plant Quarantine.

Permits may be issued for the interstate movement of seed to any destination on condition that the seed has been given a special heat treatment at 145° F. maintained under approved conditions for a period of 1 hour and subsequently has been protected from contamination, or has been given such other treatment as may later be approved by the Bureau of Plant Quarantine.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of cottonseed from a regulated area on such conditions as may be prescribed by that Bureau.

Cottonseed produced outside of but brought within a regulated area may be moved interstate from such area under permit on condition that while in the area the seed has been protected from contamination in a manner satisfactory to the inspector.

Regulation 7. Lint and Samples

Lint and samples thereof shall not be moved or allowed to be moved interstate from a regulated area unless a permit has been issued therefor by the United States Department of Agriculture.

Permits may be issued for such movement of lint or samples thereof produced in a regulated area on condition that the lint was produced in a gin operated as to seed sterilization and the prevention of contamination to the satisfaction of the inspector, and upon compliance with the following additional requirements which shall be carried out under the supervision of an inspector and in manner and by method approved by the Bureau of Plant Quarantine:

Baled lint must be either vacuum fumigated, or compressed, or roller treated, or given such other treatment or treatments as may later be approved by the said Bureau; samples must be either fumigated, inspected, or otherwise treated as may be required by the inspector.

Permits may be issued for the interstate movement of baled lint and samples thereof grown outside of but brought within a regulated area and to be moved therefrom on the furnishing of evidence satisfactory to the inspector that the said materials have been protected from contamination.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of lint from a regulated area on such conditions as may be prescribed by that Bureau.

Regulation 8. Linters and Samples

Linters and samples thereof shall not be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement of linters and samples thereof produced in a regulated area on condition that they were produced from sterilized seed and protected from contamination to the satisfaction of the inspector, and on compliance with the following additional requirements which shall be carried out under the supervision of an inspector and in manner and by method approved by the Bureau of Plant Quarantine:

Baled linters must be either vacuum fumigated, or compressed, or roller treated, or given such other treatment as may later be approved by the said Bureau; samples must be either fumigated, inspected, or otherwise treated as may be required by the inspector.

Permits may be issued for the interstate movement of baled linters and samples thereof grown outside of but brought within a regulated area and to be moved therefrom on the furnishing of evidence satisfactory to the inspector that such materials have been protected from contamination.

In cases where, in the judgment of the Bureau of Plant Quarantine, the carrying out of the treatments required in this regulation becomes impracticable owing to the lack of satisfactory facilities or for some other sound reason, permits may be issued for the interstate movement of linters from the regulated areas on such conditions as may be prescribed by that Bureau.

Regulation 9. Millwaste, Unbaled Lint and Linters, and Other Forms of Unmanufactured Lint and Linters

No form of cotton lint or linters shall be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture, except that no permit is required for the interstate transportation of materials which have been woven or spun from cotton lint or linters and are uncontaminated with other cotton or cotton products, nor for the interstate transportation of mattresses, pillows, cushions, or upholstery, which have been commercially manufactured in compliance with the Thurberia weevil regulations of the State concerned and in which any unwoven lint or linters used are completely enclosed in the finished product.

Permits may be issued authorizing the interstate movement from a regulated area of millwaste and of all other forms of unmanufactured cotton lint or linters for which permits are required under these regulations and which are not specifically covered in regulations 7 and 8, on condition that the material has been fumigated and compressed or roller treated, or has been given such other treatment or handling as will, in the judgment of the Bureau, eliminate risk of spread of the Thurberia weevil.

Regulation 10. Cottonseed Hulls, Cake, and Meal

No cottonseed hulls, cake, or meal shall be moved or allowed to be moved interstate from a regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture.

Permits may be issued for the interstate movement from a regulated area to any destination of cottonseed hulls obtained from sterilized cottonseed on

condition that they have been protected from subsequent contamination to the satisfaction of the inspector and have been given such additional treatment as may be required by the inspector.

Permits may be issued for the interstate movement from a regulated area to any destination of cotton seed cake and meal produced either from sterilized cottonseed or from cottonseed obtained from nonregulated territory, on condition that the cake and meal have been protected against subsequent contamination with cottonseed to the satisfaction of the inspector.

Regulation 11. Bagging, Wrappers, and Containers

Bagging and other wrappers and containers which have been used in connection with or which are contaminated with cotton or cotton products, shall not be moved or allowed to be moved interstate from the regulated area unless a permit shall have been issued therefor by the United States Department of Agriculture. Permits may be issued on condition that such bagging or other wrappers or containers have been cleaned or treated to the satisfaction of the inspector.

Regulation 12. Cars, Boats, Vehicles, Household Goods and Equipment

Railway cars, boats, and other vehicles which have been used in conveying cotton or cotton products or which are fouled with such products, and farm household goods, farm equipment, and other articles, if contaminated with cotton or cotton products, shall not be moved or allowed to be moved interstate from the regulated area until they have been thoroughly cleaned or treated to the satisfaction of the inspector. No permit is required for the movements allowed under this regulation.

Regulation 13. Hay and Other Farm Products; and Cottonseed Oil

Hay and other farm products the interstate movement of which has not been specifically restricted or provided for elsewhere in these regulations, and cottonseed oil, may be moved interstate without permit or other restriction until further notice.

Regulation 14. General Permit Provisions; Marking and Labeling; Costs of Treatments, etc.

To obtain permits under these regulations application should be made to the nearest local inspector or to the Bureau of Plant Quarantine, 521 Avenue A, San Antonio, Tex.

Permits may specify a destination point or a limited destination area for the shipment and, in that event, the material concerned shall not be moved or allowed to be moved interstate, directly or indirectly, to destinations other than those specified in such permit.

In case Thurberia-weevil infestation within any part of the regulated area becomes so general or so heavy in the future that, in the judgment of the Bureau of Plant Quarantine the safeguards or treatments prescribed herein are insufficient to prevent the spread of the weevil therefrom, permits for the interstate movement of restricted articles produced or stored in such generally or heavily infested part of the area may either be refused or may be withheld until such additional treatments or safeguards have been applied as may be necessary, in the judgment of the Bureau, to prevent the spread of the Thurberia weevil.

Copies of the permits required under these regulations shall be attached to the articles or to the waybills or other shipping papers which accompany the shipment. In the case of movement by a road vehicle, copies of the permit shall accompany the vehicle. The products or articles so moved shall bear such marking and labeling as may be necessary, in the judgment of the inspector, to identify the material.

All charges for storage, cartage, and labor, incident to inspection, other than the services of the inspector, shall be paid by the shipper.

REGULATION 15. SHIPMENTS BY THE UNITED STATES DEPARTMENT OF AGRICULTURE

Products and articles subject to restriction in these regulations may be moved interstate by the United States Department of Agriculture for experimental or scientific purposes, on such conditions and under such safeguards as may be prescribed by the Bureau of Plant Quarantine. The container of articles so moved shall bear, securely attached to the outside thereof, an identifying tag from the Bureau of Plant Quarantine showing compliance with such conditions.

These rules and regulations shall be effective on and after October 2, 1933, and shall supersede on that date the rules and regulations issued under Notice of Quarantine No. 61 (revised), on July 9, 1927, as amended to date.

Done at the city of Washington this 30th day of September 1933.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL] H. A. WALLACE.
Secretary of Agriculture.

[Copies of foregoing revised regulations sent to all common carriers doing business in or through the regulated area.]

NOTICE TO GENERAL PUBLIC THROUGH NEWSPAPERS

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT QUARANTINE,
Washington, D.C., September 30, 1933.

Notice is hereby given that the Secretary of Agriculture, under authority conferred on him by the plant quarantine act of August 20, 1912 (37 Stat. 315), as amended, has promulgated a revision of the rules and regulations supplemental to Notice of Quarantine No. 61, on account of the Thurberia weevil, effective October 2, 1933. Under the revision the regulated areas include Cochise and Santa Cruz Counties, and parts of Graham, Pima, and Pinal Counties in Arizona. The revision authorizes the use of various improved treatments and other safeguards that have been developed by the department in recent years, and makes various other changes with regard to treatment and transportation, of interest to growers and shippers of cotton and cotton products. Copies of said revision may be obtained from the Bureau of Plant Quarantine, United States Department of Agriculture, Washington, D.C.

H. A. WALLACE,
Secretary of Agriculture.

[Published in the Arizona Republican, Phoenix, Ariz., Oct. 10, 1933.]

MISCELLANEOUS ITEMS

P.Q.C.A.—306, Supplement No. 1. AUGUST 25, 1933.

PLANT QUARANTINE RESTRICTIONS, NEW ZEALAND

New Zealand Gazette No. 50, July 13, 1933, publishes Notice No. Ag. 3131, amending regulations under the Orchard and Garden Diseases Act, 1928, in regard to the importation of fruits or plants into New Zealand.

This notice amends regulation 6 and the inspector's certificate of the sixth schedule, and reads as follows:

REGULATIONS

1. Notwithstanding anything to the contrary in the principal regulations insofar as they relate to the admission of fruit, the introduction into New Zealand of any fruit from any country in which Mediterranean or West Australian fruit fly (*Halterophora capitata*, described also as *Ceratitis capitata*), is known to exist, is absolutely prohibited.

2. Every shipment of fruit which by the principal regulations and these regulations may be introduced into New Zealand shall, in addition to the

certificates required by the principal regulations to accompany such fruit to New Zealand, be accompanied by a certificate signed by an officer of the Department of Agriculture or other department performing the functions or duties relating to horticulture in the country where such fruit was grown, certifying that Mediterranean or West Australian fruit fly (*Halterophora capitata*, described also as *Ceratitis capitata*), does not exist in the country where such fruit was grown: *Provided*, That the aforesaid certificate may be combined with the appropriate certificate required by the principal regulations to accompany fruit the introduction of which is permitted under the principal regulations and these regulations, and if so combined may be in or to the effect of the form set out in the schedule hereto.

SCHEDULE

The Orchard and Garden Diseases Act, 1928 (New Zealand)

Inspector's additional certificate to accompany fruit to New Zealand

I hereby certify that Mediterranean or West Australian fruit fly (*Halterophora capitata*, described also as *Ceratitis capitata*), does not exist in the country where the above-mentioned fruit was grown.

Dated at ———, this ——— day of ———, 193—.

Signature _____

Official designation _____

Address _____

AVERY S. HOYT,
Acting Chief of Bureau.

B.P.Q.–355.

SEPTEMBER 7, 1933.

PLANT QUARANTINE RESTRICTIONS, JAMAICA, BRITISH WEST INDIES

The following summary of the plant quarantine restrictions of Jamaica, British West Indies, was prepared August 4, 1933, by the acting director of agriculture of that Colony and is offered for the information of nurserymen, plant quarantine officials, and others interested in the exportation of plants and plant products from the United States.

The information contained in this circular is offered as being correct and complete up to the time of preparation, but it is not intended to be used independently of, nor as a substitute for, the original texts of the orders and proclamations concerned, nor is it to be interpreted as legally authoritative. The orders and proclamations should be consulted for the exact texts.

LEE A. STRONG,
Chief of Bureau.

SUMMARY OF THE PLANT-QUARANTINE RESTRICTIONS OF JAMAICA, BRITISH WEST INDIES

Article	Proclamations, orders, etc., in force Feb. 18, 1932		
	Instrument	Date	Provisions
Citrus:			
Fruits	Proclamation under law 23 of 1916.	Feb. 13, 1924	Prohibited from all countries.
Plants, buds, and grafts	Order under law 10 of 1925.	June 18, 1925	Do.
Cotton, including any part of any plant of any species or variety of *Gossypium*.	do	do	Prohibited from all countries (except Turks and Caicos Islands) except under special license from Director of Agriculture.
Coconuts in the husk	Proclamation under law 23 of 1916.	May 15, 1923	Prohibited from all countries.
Banana plants or parts thereof or articles used as packing or covering for.	do	Apr. 3, 1917	Do.
Tools or implements usually employed in the cultivation of bananas.	do	do	Prohibited from Central or South America or Trinidad.
Earth or soil	do	do	Prohibited from all countries.
Fruits and vegetables (except dried or processed, grains, seeds, potatoes, onions, or any species of *Allium*).	do	(1) July 9, 1929 (2) May 27, 1930	Prohibited from all countries except United States of America, Canada, United Kingdom, and Ireland. A certificate that the products are home grown is required from the named countries.
Plants or parts thereof, including any soil, articles, coverings, or packages in which they may be enclosed or packed.	Order under law 10 of 1925.	June 4, 1929	(1) From the United Kingdom may be imported without permit. Entry permitted into port of Kingston only. On arrival must be fumigated with hydrocyanic acid gas. (2) From any country other than the United Kingdom permitted only if and when a written permit has been granted by the Director of Agriculture previous to importation. Admission allowed into port of Kingston only. Goods must be consigned to the Director of Agriculture and on arrival will be subjected to such disinfection or fumigation as may be considered necessary.
	do	Apr. 26, 1930	The permit will take the form of a label which must be forwarded by the importer to the supplier, who must attach it to the package containing the plants. Packages arriving without a permit attached are to be destroyed forthwith by post office or customs.
Agricultural tools or implements of labor: (*a*) New and unused (*b*) Used	Order under law 10 of 1925.	June 4, 1929	Same as (1) and (2) above. A permit as in (2) above is necessary before used tools and implements can be imported from any country, including United Kingdom.

B.P.Q.—347, Supplement No. 1.

SEPTEMBER 30, 1933.

PLANT QUARANTINE RESTRICTIONS, REPUBLIC OF GREECE

RESTRICTIONS ON THE IMPORTATION AND TRANSIT OF POTATOES

(Decree of Mar. 29, 1933)

ARTICLE 1

(1) The importation into, and transit through Greece, of potatoes and parts thereof, as well as of sacks and other containers, which may have served for their transportation and storage, from countries infested by the coleopteron, *Doryphora decemlineata*, or the fungus, *Synchytrium endobioticum*, are prohibited.

(2) The importation into, and transit through Greece, of potatoes from countries other than those which are affected by the prohibition of the preceding paragraph, are authorized under the following conditions:

(*a*) When potatoes are offered for entry in containers, the containers (sacks, baskets, cases, etc.) must be new and never have served for the transportation of potatoes, and must be sealed by the plant protection service of the country of origin.

If the potatoes are transported by rail, the cars must be closed and sealed as above.

(*b*) Each shipment of potatoes must be accompanied by two copies of certificates of health and origin prepared according to the model under article 5, in the language of the country of origin and in French, or officially translated into Greek. One copy will remain in the customhouse at which consumption or in transit entry is made, and the other will accompany the shipment.

The date of the certificates shall not precede the date of shipment by more than 20 days.

The foreign authority issuing the certificate must at once mail the original to the phytopathological section, Ministry of Agriculture, Athens, Greece.

For importations of potatoes by rail the two copies of the certificate of health and origin must be attached to the waybill.

If a shipment includes several cars, each car must be accompanied by two copies of a certificate issued for each car separately.

(3) The importation of potatoes from countries that are free from *Doryphora* and *Synchytrium*, but which have traversed countries in which that insect and that fungus exist, is authorized on condition that the potatoes are well packed and are sealed by the official service of plant protection of the country of origin.

If the potatoes are transported by rail, the formalities required by the preceding paragraph are to be applied.

(4) The frontier customs offices, in the case of transportation by rail, or the ports, in the case of ocean transportation, will prohibit the entry and transit of potatoes, parts thereof, their containers, etc., if the shipments do not absolutely comply with the conditions provided by the present decree.

(5) The entry into, and transit through Greece, of potatoes, must be effected only through the customhouse of Eidomeni, and through the ports of Piraeus, Saloniki, and Patras.

(6) For the present, the countries considered as attacked by *Doryphora* are France (except its colonies and Corsica), the United States, and Canada.

(7) The following countries are attacked by *Synchytrium*: Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Great Britain, Ireland, Netherlands, Norway, Poland, Sweden, and Switzerland.

ARTICLE 2

The entry of living plants, and living parts thereof, bulbs, rhizomes, tubers (other than potatoes), insofar as they do not fall under the prohibitions prescribed by measures in force against Phylloxera, is authorized only when each shipment of the said products is accompanied by an official certificate of the country of origin, affirming that the products shipped are free from *Doryphora* and that that insect does not exist where the products were grown, nor within a distance of 100 kilometers therefrom.

ARTICLE 3

The importation of potatoes intended for planting is permitted, whatever their origin, under the following conditions:

(1) A permit must have been obtained in advance from the Ministry of Agriculture.

(2) The potatoes shall be in containers.

(3) The containers shall be absolutely new.

(4) Each container shall be sealed by the official plant protection service of the country of origin.

(5) Each shipment shall be accompanied by a certificate of health and origin in conformity with the conditions set forth in article 1 of this decree, and also a declaration of the firm whence the seed potatoes came, affirming, in addition to the identifying marks of the shipment, the variety of potatoes, and a statement that they are suitable for planting.

ARTICLE 4

The Minister of Agriculture reserves the right to have the potatoes and the products mentioned in article 2 inspected when offered for entry, by officials designated for that purpose, even in cases where all the provisions of this decree have been complied with.

If that inspection shows the potatoes to be carriers of *Doryphora decemlineata*, or *Phthorimaea operculella* or of *Synchytrium endobioticum*, those products will be reexported within 15 days at the expense of the importer, or subjected to disinfection, likewise at the expense of the importer, to the extent that such a measure is deemed sufficient, and that means for disinfecting are available at the port of entry; or, finally, they will be destroyed, still at the cost of the importer, without right of indemnity.

The destruction shall take place immediately, if the detention of the potatoes is deemed dangerous or after a perior of 15 days. For destruction, the formalities of article 2 of law No. 217 are to be followed.

ARTICLE 5

The model of the certificate of health and origin mentioned in this decree will be the following (see model appended).

The present decree becomes effective one month after date of publication in the Official Journal (No. 81 of Mar. 29, 1933).

MODEL OF CERTIFICATE OF HEALTH AND ORIGIN

MODÈLE DU CERTIFICAT SANITAIRE ET D'ORIGINE

Indication of Country
Indication du pays

Official Plant Protection Service
Service Officiel de Protection des Végétaux

Order No. ------
No. d'ordre ------

I, the undersigned (full name, address, and official title of agent authorized to issue the certificate) certify, in conformity with the results of the supervision of the cultures of origin and inspection of the products in the shipment, that the plants or parts of plants contained in the shipment described below are judged free from injurious diseases and insect pests, and especially from those hereafter named:

Le soussigné (nom, prénom, et qualité officielle et adresse de l'agent autorisé à la délivrance des certificats) certifie, conformément aux résultats de la surveillance des cultures d'origine, et de l'inspection des produits contenus dans l'expédition, que les végétaux ou parties des végétaux contenus dans l'envoi décrit ci-dessous sont jugés indemnes de maladies et ennemies dangereux, et notamment de ceux énumérés ci-après:

Doryphora decemlineata, *Phthorimaea operculella*, and *Synchytrium endobioticum*

Description of Shipment
Description de l'envoi

Number, weight, and kind of container.
Nombre, poids, et nature des colis.

Marks of containers.
Marque des colis.

Description of plants and indication of place where grown.
Description des végétaux et indication du lieu de culture.

Name in full and address of shipper.
Nom, prénom et adresse de l'expéditeur.

Place and date of issuance of certificate.
Lieu et date de délivrance du certificat.

[SEAL] [SCEAU] Signature:_____
LEE A. STRONG,
Chief of Bureau.

B.P.Q.—302, Revised, Supplement No. 1. SEPTEMBER 30, 1933.

PLANT QUARANTINE RESTRICTIONS, GERMANY

The decree of November 3, 1931, to prevent the introduction of San Jose scale and the apple fruit fly, was amplified by that of April 20, 1933, by adding a new paragraph to article 1. Therefore the following paragraph should be inserted between the second and third paragraphs under the caption "San Jose Scale Restrictions on Plant Importation" on page 5 of Circular B.P.Q-302, revised:

"The Imperial Minister of Nourishment and Agriculture, in agreement with the Minister of Finance, can determine that the importation of living plants, and fresh parts thereof, from countries other than those named in paragraph 1, in connection with which the occurrence of San Jose scale is suspected, shall be restricted to certain customs ports of entry and be subject to the condition that, as a result of the required inspection of the shipment at the port of entry, no San Jose scale, or suspicion thereof, be established; he can also extend the provisions of paragraphs 1 and 2 to other countries in which the presence of San Jose scale has been established."

Furthermore, the following paragraph should be inserted between paragraphs 1 and 2 under the caption "Fresh Fruits must be Free from San Jose Scale and the Apple Maggot" on page 7 of the same circular:

"The Imperial Minister of Nourishment and Agriculture, in agreement with the Minister of Finance, can determine that the importation of fresh fruit and refuse of fresh fruit from countries other than those named in paragraph 1, in connection with which San Jose scale is suspected, shall be restricted to certain ports of entry, and be subject to the condition that, as a result of the required inspection of the shipment at the port of entry, no San Jose scale, or suspicion thereof, be established; he can also extend the provisions of paragraph 1 to other countries in which the presence of San Jose scale has been established."

The decree of November 3, 1931, has also been supplemented by that of June 11, 1933 (Reichsgesetzbl. 1: 79, July 14, 1933, p. 468), to restrict the importation into Germany of living plants and fresh parts thereof from Rumania, Bulgaria, Greece, Poland, and Yugoslavia. The text of that decree follows:

ARTICLE 1. (*a*) The importation of living plants and fresh parts thereof from Rumania across the frontiers of the German Republic is prohibited until

further notice. The same applies to wraps and articles of any kind that have been used for packing or storing such plants or plant parts.

(*b*) Fresh fruit and refuse of fresh fruit from Rumania, until further notice, may be imported only through the customs ports named in article 3, only in the original packages, and only under the condition that an inspection, made at the port of entry at the cost of the interested person, reveals no infestation or suspicion of infestation with San Jose scale.

ART. 2. Living plants and fresh parts thereof, as well as fresh fruit and refuse of fresh fruit from Bulgaria, Greece, Yugoslavia, Poland, and Czechoslovakia may be imported only through the customs ports named in article 3, and only on condition that an inspection, made at the port of entry at the cost of the interested person, reveals no infestation or suspicion of infestation with San Jose scale.

ART. 3. The products named in articles 1 and 2, insofar as their importation is not prohibited, until further notice, may be imported only through the following customs ports of entry:

Prussia:

Chief customs office: Stettin Auslandsverkehr.

Customs offices: Beuthen O. S. Bahnhof, Deutsch-Eylau Bahnhof, Fraustadt Bahnhof, Kreuz Bahnhof, Libau Bahnhof, Mittelwalde Bahnhof, Neu-Bentschen, Oderberg Bahnhof, Seidenberg Bahnhof, Stettin Freibezirk, Tilsit Bahnhof, Tilsit Memelbrücke, Trachenberg Bahnhof, Ziegenhals Bahnhof.

Branch customs offices: Berlin-Tempelhof airport, Breslau Grossmarkthalle, and Eydtkuhnen Land.

Bavaria:

Chief customs offices: Lindau and Simbach.

Customs offices: Asch Bahnhof, Eger Bahnhof, Kufstein, München Grossmarkthalle, Passau Bahnhof, and Salzburg.

Saxony:

Customs offices: Bad Schandau for steamship traffic, Bodenbach, Reitzenhain, Tetschen, Boitersreuth, Warnsdorf, and Weipert.

Hamburg:

Combined customs offices in Hamburg, and the customs office of Curhaven.

ART. 4. The provisions of article 3 apply also to the importation of living plants and fresh parts thereof from Rumania when importation is exceptionally permitted.

ART. 5. The provisions of section 2 of article 2, sections 3 and 4 of the decree of November 3, 1931, to prevent the introduction of San Jose scale and the apple fruit fly are applicable.

LEE A. STRONG, *Chief of Bureau.*

P.Q.C.A.—314, Supplement No. 3. SEPTEMBER 30, 1933.

PLANT QUARANTINE RESTRICTIONS, BRITISH HONDURAS

The text of Proclamation No. 21, of August 1, 1933, prohibiting the importation of tobacco seeds into British Honduras, is as follows:

"Whereas it is expedient for the protection of the tobacco industry to prohibit the importation into this colony of tobacco seeds:

"I, Henry Guy Pilling, officer administering the Government, in exercise of the powers vested in me by the Plant Protection Ordinance—Chapter 71 of the Consolidated Laws, 1924—as amended by the Plant Protection (Amendment) Ordinance, 1928 (No. 21 of 1928), and otherwise, and with the advice of the Executive Council, do hereby order and proclaim that from the fifth day of August 1933, all importations of tobacco seeds are prohibited except under license issued by the Agricultural Officer and which shall prescribe such treatment of the seeds by the Department of Agriculture as the Agricultural Officer may deem necessary."

LEE A. STRONG,
Chief, Bureau of Plant Quarantine.

P.Q.C.A.—305, Revised. SEPTEMBER 11, 1933.

SHIPMENT OF MEXICAN CITRUS FRUITS IN BOND THROUGH THE UNITED STATES

The importation for consumption purposes of citrus fruits (exclusive of lemons and sour limes) and certain other fruits from Mexico, is prohibited by Notice of Quarantine No. 5, and Amendment No. 1 thereto, issued under the authority of the Federal Plant Quarantine Act, to prevent the entry into the United States of an injurious insect known as the Mexican fruit fly (*Trypeta ludens*).[1]

With respect to articles prohibited entry in this and other similar quarantines promulgated for the purpose of excluding plant pests, provision has been made for the entry, under permit, either for immediate exportation or for immediate transportation and exportation in bond, of such articles, when such action can be taken without risk to the fruit or other cultures of the United States. These provisions are embodied in the revision of plant safeguard regulations promulgated by the Secretary of Agriculture October 4, 1932, and effective December 1, 1932.

CONDITIONS GOVERNING RAIL SHIPMENT IN BOND OF CITRUS FRUIT PRODUCED IN THE STATE OF SONORA, MEXICO

(1) Permits will be issued to authorize the entry for immediate transportation and exportation in bond of Mexican citrus fruit produced in the State of Sonora alone, under conditions which will be incorporated in the permits.

(2) The exporter of citrus fruit or his forwarding agent in the United States must first procure from the Bureau of Plant Quarantine a permit to authorize the routing of the shipment via a certain port of the United States. A separate permit will be required for each port of entry and country of destination, but each permit will be an open permit continuing until revoked and valid over all the designated routes.

(3) Such movement will be limited to entry through the ports of Nogales and Naco, Ariz., and movement through the United States by designated routes to Canada, or back into Mexico at ports not farther east than El Paso.

(4) As a condition of such movement the fruit must be shipped in bond under United States customs seal in refrigerator cars, and may not be transhipped en route.

(5) Prior to entry the permittee or his forwarding agent must submit to the collector of customs at the port of entry a notice, in duplicate, on forms provided for the purpose, indicating the initials and number of the railroad car, the particular authorized route over which it is proposed that the car shall move, and the port of exit on the Canadian or Mexican border through which the car will pass out of the United States.

(6) Before entry each car must be disinfected in such manner as shall be required by the inspector of the Bureau of Plant Quarantine.

(7) After the shipment has reached destination and been discharged either in Canada or Mexico, the car conveying it, as a condition of return to the United States, must be carefully swept and freed from all boxes, fruit, or other rubbish by the railroad company involved.

Failure to comply with any of the above requirements may cause the cancelation of the permit.

RAILROAD ROUTES AUTHORIZED FOR THE MOVEMENT OF SONORAN CITRUS FRUIT DIRECTLY FROM MEXICO TO CANADA OR BACK INTO MEXICO

From Sonora, Mexico, to Canada in Bond Through the United States

Direct routing is authorized of citrus fruits from the State of Sonora, Mexico, through Nogales or Naco, Ariz., eastward to El Paso, Tex., thence to Canada via any routing which does not pass west of the direct rail routes through Salt Lake City, Utah, and Portland, Oreg., or southeast of the direct rail routes through San Antonio, Tex., and St. Louis, Mo. (See map.)

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[1] The Federal Plant Quarantine Act of Aug. 20, 1912, as amended, provides either for regulation or prohibition of the entry of plants and plant products when such action shall be necessary to prevent the introduction into the United States of injurious insects and plant diseases. Under this authority citrus fruit from Mexico, including oranges, grapefruit, and sweet limes, and also mangoes, sapodillas (*Achras sapota*), peaches, guavas, and plums are prohibited entry into the United States on account of the Mexican fruit fly (*Trypeta ludens*).

From Sonora, Mexico, in bond through the United States back into Mexico

Port of entry into United States	Via	Port of exit from United States	Port of reentry into Mexico
Nogales, Ariz.	Southern Pacific & Nacozari R.R.	Douglas	Agua Prieta, Sonora.
Do.	Southern Pacific & Mexico Northwestern R.R.	El Paso	Ciudad Juarez, Chihuahua.
Naco, Ariz.	Southern Pacific & Nacozari R.R.	Douglas	Agua Prieta, Sonora.
Do.	Southern Pacific, Mexico Northwestern, or National R.R. of Mexico.	El Paso	Ciudad Juarez, Chihuahua.
Douglas, Ariz.	do.	do.	Do.

Conditions Governing Movement in Bond to Canada of Mexican Citrus Fruit Through North Atlantic Ports

In addition to the rail movement from the Mexican border ports of citrus fruit produced in the State of Sonora, Mexico, under the conditions set forth above, citrus fruit from any part of Mexico coming to the port of New York or other approved northern Atlantic ports by ocean transit during the period October 15 to March 15, if apparently free from infestation, as determined by inspection at the approved port of entry, may be permitted entry at such ports for immediate transportation and exportation in bond to Canada in accordance with the Revised Plant Safeguard Regulations, promulgated by the Secretary of Agriculture October 4, 1932, and effective December 1, 1932. (See par. 2 of this circular.)

A separate permit is required for each shipment of this character and application should be made in advance: *Provided*, That a continuing permit, valid until revoked, may be issued upon application when it is shown that shipments will be made throughout each season. If all required information is not available in advance of the arrival of any shipment for which a separate permit is required, the forwarding agent at New York may file an application at the New York office of the Bureau of Plant Quarantine, room 844, Federal Building, Christopher Street, New York, on the arrival of such a consignment at that port.

After the shipment has reached destination and been discharged in Canada, the car conveying it, as a condition of return to the United States, must be carefully swept and freed from all boxes, fruit, or other rubbish by the railroad company involved.

Lee A. Strong,
Chief of Bureau.

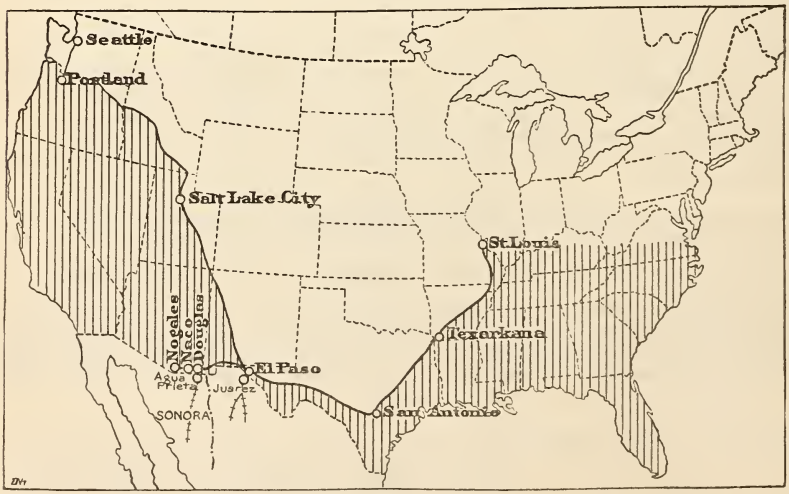


Figure 2.—Direct routing from Sonora, Mexico, to Canada by any railroad within the unshaded area.

LEE A. STRONG NAMED CHIEF OF BUREAU OF ENTOMOLOGY

(Press notice)

SEPTEMBER 29, 1933.

Lee A. Strong, who for the past 4 years has been chief of the Bureau of Plant Quarantine, will become chief of the Bureau of Entomology on October 1, Secretary Wallace announced today.

The work of these two bureaus is closely related. The Bureau of Entomology is a research institution, charged with investigations and demonstrations for the promotion of economic entomology; it seeks the best means of destroying injurious insects and the development of beneficial ones. The Bureau of Plant Quarantine is responsible for the enforcement of quarantines promulgated to prevent the entry or dissemination of dangerous plant pests new to or not widely distributed within the United States; it is also responsible for carrying on, in cooperation with the States, necessary work to prevent the spread or to eradicate pests that may have gained local foothold.

Mr. Strong's transfer to the position of Chief of Entomology will reestablish a close working arrangement between the two bureaus that previously existed until the control and research work were definitely separated on July 1, 1928. Even after that, the Chief of Entomology continued also as chief of the Plant Quarantine and Control Administration until Mr. Strong came to the Department on December 1, 1929.

Mr. Strong succeeds C. L. Marlatt, who is retiring after nearly 45 years of service with the Federal Government. Avery S. Hoyt, now assistant chief, will become Acting Chief of the Bureau of Plant Quarantine. However, Mr. Strong will complete several important projects he has started in the quarantine work after his transfer takes place; he will, for example, conduct the hearing which has been called for October 25 to consider a possible revision of Quarantine 37.

Mr. Strong's legal residence is in California where he served as assistant director of agriculture just before coming to the United States Department of Agriculture. He was formerly connected with the Federal Department as a specialist in plant-quarantine work.

FRUIT-FLY SURVEY IN THE WEST INDIES, BRAZIL, URUGUAY, CHILE, AND PERU

SEPTEMBER 30, 1933.

This field survey, which was made with the consent and cooperation of the officials of the West Indies, Brazil, Uruguay, Chile, and Peru, had for its purpose two objectives: (1) To determine whether, in the administration of the fruit and vegetable quarantine (Quarantine No. 56), fruits and vegetables produced in those countries which did not represent pest risk were being denied entry into the United States; and (2) to determine whether fruits and vegetables which were being admitted into the United States from the countries named were subject to attack by fruit flies or other injurious insects. Arrangements for this survey were made through the State Department, whose representatives in the countries concerned assisted materially in perfecting plans for the investigation. The success attained was in no small measure due to the helpful cooperation rendered by the government officials of the countries visited.

Because of their fruit-fly experience, Max Kisliuk, Jr., and C. E. Cooley, plant quarantine inspectors of the Bureau of Plant Quarantine, were selected to make this survey. Much valuable information was secured, not only with respect to fruit flies but other pests which attack fruits and vegetables in the countries concerned. A total of 2,171 collections were made. Of this number 2,153 represented insects and 18 plant diseases. The insect and plant-disease identifications included in this summary were made by the specialists of the Bureaus of Entomology and Plant Industry. The following summary of the results secured has been prepared by Messrs. Kisliuk and Cooley.

LEE A. STRONG,
Chief, Bureau of Plant Quarantine.

British Bahama Islands

The survey of this group, May 28–30, 1931, was for various reasons limited to the section immediately surrounding the city of Nassau and the Blue Hill region, both on the island of New Providence. Due to previous hurricanes and other agricultural difficulties, there was but little of fruit and vegetables to be seen, scarcely more than 100 fruits of the mango being encountered during the entire time spent on this island. Most of the fruits consumed were grown on the neighboring islands and in certain of the West Indies, viz, Cuba, Jamaica, Haiti, etc.

The only trypetid found on the island of New Providence as a result of this survey was the papaya fruit fly, *Toxotrypana curvicauda* Gerst. Fifty percent of the papayas examined were found to be infested with the larvae of this fruit fly, and several adults were taken.

Among economic insects other than fruit fly observed on the island, the most injurious were the citrus black fly, *Aleurocanthus woglumi* Ashby, and the curculionid. *Pachnaeus* (?) *psittacus* Olivier, on nearly all citrus plants. The scale insects, *Coccus hesperidum* L. and *C. viridis* Green, were also quite destructive to citrus foliage. The latter insect was also found to be damaging about 12 percent of the leaves of guava. Okra was attacked by *Nezara viridula* L. Cornstalks and ears of corn were riddled with borings by *Heliothis obsoleta* Fab. and *Laphygma* sp., and the leaves of corn were being fed upon by the Mollusca, *Capolis varians*, and the Coreidae, *Phthia picta* Drury. Pigeonpea pods were heavily infested with *H. obsoleta*, as well as a species of *Fundella*, and 10 percent of the sapodilas from the neighboring island of Eleuthera had scales of *Aspidiotus lataniae* Sign. Squash was being bored into by a species of *Diaphania*, while cabbage was fed upon by *Plutella maculipennis* Curt. and *Murgantia histrionica* Hahn, etc.

Jamaica, British West Indies

Heavy rains during the period of the survey of Jamaica, June 2–20, 1931, made it difficult to reach many districts, but the following places were visited: Kingston and its immediate vicinity, Hope Gardens, Spanish Town, Papine, Constance Springs, Cinchona Gardens, Pleasant Hill, Temple Hall, Castleton, Linstead, Moneague, St. Anns Bay, Dry Harbour, Falmouth, Montego Bay, Phoenix, Caladupa, Ginger Hill, Lacovia, Santa Cruz, Mandeville, Williamsfield, Perus, May Pen, Hartlands, Chapelton, Williamsfred, and Manchester Pastures.

Examinations were made of all fruits and vegetables found to be in a susceptible stage of maturity in the field and in the various public markets visited. The following fruits were encountered: Bananas, plantains, papayas, mangoes, soursops, tangerines, limes, guavas, oranges, grapefruit, rose apples, sour oranges, pineapples, breadfruit, star-apples, purple hog plums, immature avocados, cashew fruits, and akee (*Blighia sapida*). Vegetables seen were cucumbers, tomatoes, chayotes, okra, peppers, eggplants, beets, turnips, sweetpotatoes, yams, green peas, string beans, pumpkins, onions, scallops, carrots, potatoes, cabbages, and lima beans.

The following fruit-fly infestations were found: 226 larvae of *Anastrepha* sp. in mangoes, purple hog plums, guavas, rose apples, and sapodillas, and 38 adults of *Anastrepha* sp. were successfully reared from larvae taken in mangoes and purple hog plums. Four adults of *Anastrepha* sp. were collected on the leaves of cocoa and mango at Hope Gardens, and 70 adults of *Anastrepha acidusa* Walk., on the leaves of bitter almond, akee, cocoa, mango, and purple hog plums were also taken at that place. At Cinchona, 3 adults and 2 puparia of an apparently unusual trypetid were taken on the leaves and buds of a sweetpotato vine, *Ipomoea jamaicensis*.

Among the more noteworthy injurious insects other than fruit fly taken in Jamaica were the following: The citrus black fly, *Aleurocanthus woglumi* on citrus foliage and on that of surinam-cherry, the latter also being found attacked by a species of *Pseudoparlatoria*. *Prepodes vittatus* L. and *Pachnaeus citri* Mrshl. were also found to be especially injurious to citrus plants. *Bephrata cubensis* Ashm. was found in seeds of custard-apples. Larvae of a species of Olethreutidae were found in guavas, and *Stoiba swartzii* Thunb. was devouring the leaves and stems of the sweetpotato. *Lachnopus aurifer* White was taken on the foliage of mango, *Crotalaria*, and many other plants. The pink bollworm, *Pectinophora gossypiella* Saund., was found in cotton bolls, and

the cotton stainer, *Dysdercus andreae* L., was taken on this plant as well as on some unknown hosts. Fifty percent of the leaves of papaya were infested with *Trialeurodes variabilis* Q., and larvae of a species of Tineidae were also found in this fruit. The leaves of melon, okra, and many unknown plants were attacked by *Pycnoderes quadrimaculatus* Guer. Twenty-five percent of the leaves of rose apple were seriously affected by the following scale insects: *Vinsonia stellifera* Westw., *Coccus acuminatus* Sign., and *C. mangiferae* Green. About the electric light at the hotel were many well-known pests such as *Anomala* sp., *Dinoderus minutus* Fab., *Xyleborus confusus* Eich., *Cyclocephala* sp., *Ligyrus juvencus* Fab., *Strategus titanus* Fab., *Protoparce jamaicensis* Browne, *Xylophanes tersa* L., etc.

Republic of Haiti

Heavy rains and floods greatly hampered the work in the field and made it practically impossible to reach outlying districts in Haiti at the time of the survey, June 19–July 10, 1931. With the aid of airplanes furnished by the United States Marine Corps, motor boats by the Garde d'Haiti, and by hiring automobiles and horses, however, the following districts were visited: Port au Prince and vicinity, Pthor, Petionville, Kenscoff, Damien, Leogane, Miragoane, Jeremie, Marfranc, Aux Cayes, St. Marc, Cap Haitien, Limbe, Plaisance, and Milot.

Host fruits and vegetables were unusually scarce at the time of this survey; nevertheless some of these in a susceptible stage of maturity were found in the field and in the various public markets. Following is a list of those encountered: Bananas, plantains, several varieties of mangoes, guavas, hog plums, sapodillas, passion fruit, bitter oranges, a few sweet oranges, rose apples, akee, cashew fruits, bitter almonds, breadfruit, some immature soursops as well as other *Annonas*, coffee berries, grapefruit, star-apples, peaches, grapes, apples, etc. Vegetables seen were tomatoes, peppers, eggplants, cucumbers, lima and string beans, chickpeas, squashes, etc.

Larvae of *Anastrepha* spp. were taken in mangoes, guavas, yellow hog plums, passion fruit (granadilla), and rose apples. Adults of *Anastrepha acidusa* were reared from larvae taken in mangoes and yellow hog plums. Adults of *A. suspensa* Lw. were reared from the yellow hog plum and collected on leaves and fruit of mango, hog plum, and rose apple, and adults of *A. acidusa* were taken on mango and hog plum. Larvae of the papaya fruit fly, *Toxotrypana curvicauda*, were found in 50 percent of the papayas examined.

Noteworthy among injurious insects other than fruit flies taken were the following: Larvae of a species of Curculionidae in 5 percent of the sapodillas examined; *Bephrata cubensis* in 5 percent of the seeds of soursop; larvae of species of *Stenoma*, Olethreutidae, Blastobasidae, and *Mothonica ocellea* Forbes in 20 percent of the genips. There was also found to be a loss of 20 percent of the bean plants due to attacks by *Nezara viridula* and *Acrosternum marginatum* Pal. B. Specimens of *Diaprepes quadrivittatus* Olivier were taken on foliage of fig, geranium, and globe artichoke. *Leptoglossus gonagra* Fab. and *L. stigma* Herbst were noted puncturing the fruit of guava, and *Loxa viridis* Pal. B. was taken while sucking the juice of mango.

Dominican Republic

Recent storms and excessive rains having flooded rivers and washed out many bridges, it was necessary to confine the survey to the eastern part of the Dominican Republic. However, considerable territory was covered July 12–21, 1931, along the southern coast and northwestward through the great valley of Santiago, including the following districts: Santo Domingo and vicinity, Mella, San Isidro, Jaina, San Cristobal, Bani, Azua, Bonao, Rincon, La Vega, Moca, Santiago, and Pena. The storms had also seriously interfered with the normal development of the tropical fruit crops, particularly mangoes, which were found to be very scarce. Ordinarily this fruit would have been very abundant at this season of the year. Other fruits were also very scarce and when encountered proved to be far more immature than would have been the case under normal climatic conditions.

The following fruits in a susceptible stage of maturity were examined in the field and in the various public markets of the districts visited: Plantains, bananas, guavas, mangoes, yellow hog plums, sweet oranges, sour oranges,

limes, soursops, papayas, pineapples, grapefruit, sapodillas, Barbados cherries, cashew fruits, cocoa, figs, jackfruit, bitter almonds, cherimoyas, custard-apples, pomegranates, mamey apples, immature avocados, etc. Vegetables examined were okra, tomatoes, peppers, eggplants, cucumbers, sweetpotatoes, yams, cassava roots, etc.

From the above the following trypetids were taken: 91 larvae of *Anastrepha* spp. in the fruits of yellow hog plums, mangoes, and guavas, 19 adults of *Anastrepha acidusa* being collected on the fruit and leaves of these same hosts. Fifty-four adults of *Anastrepha suspensa* were taken from the fruit and leaves of mango, guava, and rose apple, the last-named host not bearing fruit at this time. One specimen of *Anastrepha integra* was taken on a leaf of rose apple. Three adults of the papaya fruit fly, *Toxotrypana curvicauda*, were found on the leaves of papaya and 10 of its larvae in papaya fruits. One specimen of *Acrotaenia testudinea* and six of *Acrotaenia* sp. were taken on leaves of guava. One adult of *Blepharoneura fulvicollis* V. d. W. was collected on a leaf of cocoa. In addition to the foregoing, 7 *Anastrepha suspensa* and 5 *A. acidusa* reared from rose apple at Moca by Dr. Gomez-Menor were later forwarded by him to add to the collections.

Among the more important injurious insects other than fruit flies taken were the following: Larvae of a species of Apioninae in 50 percent of the fruit of a *Eugenia* sp., and larvae of a species of Curculionidae in 4 percent of the fruit of sapodilla. *Leptoglossus stigma* was taken on bitter almond. *L. gonagra* and *Dysdercus andreae* were taken on cocoa foliage. *Diaprepes abbreviatus* and a *Lachnopus* sp. were swept from hog-plum leaves, etc.

American Virgin Islands

The three principal islands of this group were visited July 31–August 6, 1931. The authors surveyed St. Thomas jointly, after which they separated, Mr. Kisliuk visiting St. Croix and Mr. Cooley going to the island of St. John. St. Thomas and St. Croix having fairly good roads, were quite intensively surveyed, but the area covered on St. John was limited considerably due to lack of roads and difficulties of traveling by horseback and on foot.

The following districts were visited on St. Thomas: The city of St. Thomas and vicinity, Ma Folie, Canaan, Lovenlund, Peterson Hill, Tutu Bay, Mosquito Bay, Crown Mountain, Pearl Bay, and Magens Bay. Sections visited on St. Croix were Christiansted and vicinity, Anna's Hope, Two Friends, Orange Grove, and Frederiksted. On St. John, the following places were visited: Cruz Bay, Adrian, Susannaburg, Denis Bay, Hogsnest Bay, and Casey Bay.

There was a great scarcity of host fruits on all of these islands, St. Thomas having more diversified varieties than the others. Among the principal fruits examined in the field and public markets at St. Thomas, Christiansted, and Frederiksted were the following: Bananas, mangoes, yellow hog plums, sour limes, manjack, cocoa plums, pomegranates, soursops, immature cherimoyas, avocados, sapodillas, breadfruit, etc. Vegetables seen were a few tomatoes, eggplants, peppers, okra, etc.

During the course of the survey of these islands, fruit-fly infestations were found at 6 different locations on St. Thomas and at 1 point on St. Croix. Three adults of *Anastrepha acidusa* were taken from three different hosts, viz., mango, guava, and manjack (*Cordia* sp.). Two hundred and three larvae of *Anastrepha* sp. were taken in yellow hog plums and mangoes.

Among the more important injurious insects other than fruit flies taken were the following: The pink bollworm, *Pectinophora gossypiella*, in okra on the island of St. John; *Lachnopus curvipes* on mango at St. Thomas; and the scale insects, *Vinsonia stellifera* and *Coccus mangiferae* on mango leaves on the island of St. Croix. *Metamasius hemipterus*, the West Indian cane weevil, was taken in an overripe sapodilla on the island of St. Croix.

St. Kitts and Nevis, British West Indies

These islands are grouped together for convenience since they are but 2 miles or so apart. During the course of the survey (Aug. 7–12, 1931) of St. Kitts the following fruit-growing centers were visited: Lamberts, Wingfield Manor, Romneys, Monkey Hill, Stapleton, Greenhill, and Basseterre and vicinity. On Nevis the points visited were Banyans, Stoney Grove, Wards, Hamilton, Brown Pasture, Fothergills, Charlestown and vicinity, Jessops, and Mosquito Bay.

The susceptible host fruits examined in the field and in public markets on both islands were as follows: Mangoes, breadfruit, soursops, clammy cherries, seagrapes, pricklypears, yellow hog plums, immature guavas, avocados, bitter almonds, papayas, mamey apples, passion fruit, limes, pomegranates, cassava, cotton bolls, "maga", etc.

A total of 72 adults of *Anastrepha acidusa*, 517 immature specimens of *Anastrepha* sp., and 1 adult *Tomoplagia incompleta* represented the findings of Trypetidae on both of these islands. The last-named species was taken on guava; *A. acidusa* was taken on mango, hog plum, guava, and mamey apple, and the larvae of *Anastrepha* sp. were found infesting the fruit of mango and hog plum.

Among the more important injurious insects other than fruit flies taken were the following: Larvae of a species of Gelechiidae in the blossom ends of the fruit of pomegranate, and bagworms, *Oiketicus* sp., on this host in Nevis; *Caryedon fuscus* Goeze and *Corcyra cephalonica* Staint. in tamarind pods in St. Kitts; *Leptoglossus stigma* on guava; *Nezara viridula* on leguminous plants and cotton; the pink bollworm, *Pectinophora gossypiella*, in 30 percent of the cotton bolls seen; *Alabama argillacea*, devouring from 50 to 100 percent of the cotton plants; and swarms of a migrating grasshopper, *Schistocerca* sp., destroying leguminous cover crops and many other cultivated plants in St. Kitts.

Antigua, British West Indies

The survey of Antigua, August 13–22, 1931, was carried into practically every locality and district on the island due to its splendid system of roads that circumscribe and cross the island in every direction. The principal sections visited were as follows: St. John and vicinity, Belmont, Bendals, Body Ponds, Sawcotts, Wallings, Fig Tree Hill, Cades Bay, Fryes, Willocks, Dark Valley, Christian Valley, Providence, Gunthorpes, Marble Hill, Sweets Village, Parham, Bettys Hope, All Saints Village, Willoughby Bay, Bodkins, Liverta Village, Falmouth, English Harbor, and Shirley Heights.

Very careful examination was made of the few host fruits and vegetables found in the field and at the public markets in St. John, as well as at fruit stands in the smaller villages on the island. Among them were the following: Yellow hog plums, mangoes, breadfruit, soursops, limes, papayas, bitter almonds, genips, immature guavas, avocados, custard-apples, clammy cherries, pricklypears, fruits of *Cordia sulcata*, and manchineal. There were also tomatoes, eggplants, yams, yautias, okra, cucumbers, sweetpotatoes, etc. Although the above represents a fairly representative variety of possible host fruits and vegetables, the particular amount of each of these was very small, due most likely to the terrific destruction of fruit trees by the 1928 hurricane and a severe drought during 1930 and 1931. Mangoes and guavas were most affected by these climatic disturbances, which also most likely influenced the seasonal maturing of the various hosts to such an extent that no fruit flies were encountered in Antigua during this survey.

Among other important injurious insects taken were the following: *Dysdercus andreae* on mango, *Pulvinaria psidii* on yellow hog plum, and *Ligyrus tumulosus* at lights.

Guadeloupe, French West Indies

The name "Guadeloupe" is generally given to a small group of the French West Indies, of which the two largest, viz, Guadeloupe and Grand Terre, were visited in the course of this survey August 23–September 4, 1931. These two islands are separated by only a narrow channel of water, which is bridged for vehicular and pedestrian traffic. Many localities were visited on both islands as follows: Pointe-a-Pitre and vicinity, Petit Bourg, Goyave, St. Marie, Capesterre, Trios Rivieres, Basse-Terre, St. Cloud, Vieux Habitant, Bouillante, St. Rose, Lamentin, Les Abymes, St. Anne, St. Francois, Le Moule, etc.

At the public markets in Pointe-a-Pitre and Basse-Terre as well as in the fields throughout the island all of the available tropical fruit was carefully examined. Mangoes were found to be very scarce although a few trees of the late varieties were found. Other fruits examined were yellow hog plums, chili plums, golden apples, guavas, breadfruit, bananas, plantains, soursops, cherimoyas, sapodillas, papayas, coffee berries, pomegranates, immature sweet

oranges, and avocados. Vegetables seen were tomatoes, peppers, eggplants, okra, sweetpotatoes, yams, onions, cassava, palm hearts, etc.

Eighty-eight larvae and two puparia of *Anastrepha* sp. were taken in yellow hog plums; and 12 larvae and 1 puparium of *Anastrepha* sp. in chili plums, but no adult trypetids were collected nor was there sufficient time to rear adults from the immature stages noted.

Among the important injurious insects other than fruit flies taken in Guadeloupe were the following: *Phthia picta* damaging 10 percent of the tomatoes; *Nezara viridula* on solanaceous foliage; larvae of *Anthonomus* sp. and *Anarsia* sp. in fruit of *Eugenia* sp.; *Xyleborus confusus* in guavas; *Leptoglossus gonagra*, *L. stigma*, and *Diaprepes abbreviatus* on guava; *Trachyderes succinctus* on guava and mango; and *Diabrotica ochreata* on yellow hog plum; etc.

Martinique, French West Indies

Martinique has a well-developed system of roads, which made it possible to reach practically every section of the island (Aug. 27–Sept. 5, 1931), viz. Fort de France and vicinity, Tivoli, La Rodate, Colson, Deux Choux, St. James, St. Pierre, Morne Rouge, Ajoupe Bouillon, Lorain, Marigot, St. Marie, Trinite, Gros Morne, St. Joseph, Robert, Francois, Lamentin, Montte, Ducos, Petit Bourg, St. Esprit, Vauclin, Marin, and Riv. Pilote.

Mangoes were almost gone at the time of this survey and guavas not yet mature, the principal ripe fruit available in abundance being yellow hog plums. Other fruits examined were breadfruit, guavas, chili plums, bananas, plantains, cocoa, coffee berries, mamey apples, limes, passion fruit, cocoa plums, soursops, cherimoyas, sapodillas, golden apples, sour oranges, immature sweet oranges, and avocados. Vegetables seen were tomatoes, peppers, eggplants, okra, cucumbers, squashes, string beans, etc.

As a result of examinations made in the field and at the public market in Fort de France, it was found that *Anastrepha* sp. were present at 13 different locations on the island, reaching from Morne Rouge in the north to Rivre Pilote in the south. Three adults of *Anastrepha acidusa* were collected on yellow hog plum and 112 larvae and 2 puparia of *Anastrepha* sp. were taken in the same host.

Among the important injurious insects other than fruit flies taken in Martinique was *Diabrotica fucata* on guava and mango.

St. Lucia, British West Indies

The splendid road which nearly encircles St. Lucia made it possible to visit (Sept. 5–14, 1931) almost every village and hamlet on the island as follows: Castries and vicinity, Choc Bay, Union, Gros Islet, Anse La Raye, D'Ennery, Micaud, Vieux Fort, Laborie, Choiseul, and Soufriere and vicinity.

The most abundant ripe fruit found at this season was the yellow hog plum. The following fruits were also seen and examined: Bananas, plantains, limes, guavas, papayas, bitter almonds, cherimoyas, breadfruit, sapodillas, Barbados cherries, soursops, mangoes, sour oranges, golden apples, passion fruit, immature avocados, and sweet oranges. Vegetables seen were tomatoes, peppers, eggplants, okra, sweetpotatoes, yams, cabbages, onions, etc.

Two hundred and sixty-eight larvae and two puparia of *Anastrepha* sp. were found in yellow hog plums and five adults of *Anastrepha acidusa* were taken on this host. Sixty-six adults of *A. acidusa* were also collected on the leaves of cocoa, as well as 1 on Lauraceae and 1 on lime. These infestations were found at 13 different localities on the island.

Among the important injurious insects other than fruit flies were the following: A species of *Anthonomus* in 10 percent of the fruit of *Eugenia* sp. in which there were also found larvae of a species of Gelechiidae. *Leptoglossus stigma* was taken on yellow hog plum, and about the electric light in the hotel room were many well-known injurious insects, such as *Cyclocephala* sp., *Passalus unicornis* Serv., *Cryptorhynchus* sp., *Herse cingulata* Merian, etc.

Dominica, British West Indies

Due to the extremely mountainous nature of Dominica and its heavy annual rainfall, roads were very scarce and those available found to be in very poor condition. Field trips were made on September 14–21, 1931, however, to the

following districts: Roseau and vicinity, Mount Joy, Sylvania, Belfast, St. Joseph, the Layou River Valley, Point Michel, Geneva, and Grand Bay. Automobiles were used as far as road conditions would allow, but it was necessary to travel on foot to many of the fields.

The yellow hog plum was the most abundant ripe fruit available, while guavas were rapidly maturing. Other fruits seen and examined were bananas, plantains, limes, breadfruit, avocados, soursops, cherimoyas, golden apples, mangoes, oranges, tangerines, shaddocks, grapefruit, java plums, sapodillas, pomeracs, papayas, akee, and carambolas. Vegetables seen were tomatoes, peppers, okra, dasheens, yams, sweetpotatoes, onions, etc.

Examinations made in the field and at public markets revealed infestations of *Anastrepha* sp. at nine different localities in Dominica. A total of 953 larvae of *Anastrepha* sp. were found in guavas and yellow hog plums, and 191 adults of *Anastrepha acidusa* were collected on guava, bitter almond, *Inga laurina*, mango, *Acacia* sp., and yellow hog plum. One adult of another fruit fly, viz, *Acrotaenia* sp., was also taken on guava.

Among the important injurious insects other than fruit fly encountered were the following: Larvae of a species of Olethreutidae and specimens of *Platynota rostrana* Walk. in citrus fruits, *Diaprepes abbreviatus* and *Lachnopus* sp. on citrus, and *Bephrata maculicollis* Cam. in seeds of soursop.

Barbados, British West Indies

Splendid and abundant roads on the island of Barbados made it possible to carry the survey (Sept. 23–Oct. 1, 1931) into its remotest corners and reaching into every parish from St. Lucy, St. Peters, and St. Andrews in the north, through St. James, St. Thomas, St. Joseph, St. Michael, and St. John in the center of the island, as well as Christ Church and St. Philip in the south.

Host fruits and vegetables were more scarce in Barbados than in any of the other West Indian islands visited, and the survey was greatly extended in search of same. The yellow hog plum was the most abundant, but the following were also seen in small quantities: Chili plums, golden apples, breadfruit, clammy cherries, guavas, mangoes, immature avocados, soursops, cherimoyas, mamey apples, Barbados cherries, oranges, limes, grapefruit, shaddocks, bananas, and bitter almonds. Vegetables encountered were tomatoes, okra, peppers, cucumbers, squashes, eddoes, sweetpotatoes, yams, etc. Careful examination of these products revealed no evidence of fruit-fly infestation.

Noteworthy among the injurious insects other than fruit fly taken in Barbados were the following: *Sitophilus linearis* Herbst in 15 percent of the tamarind seeds still in the pod; *Diaprepes abbreviatus* on cassava plants; larvae of species of *Plusia* and *Anomis* in 15 percent of the pods of black-eyed peas; larvae of a species of Tineidae in yams, 20 percent of which were also infested with the scale *Targionia hartii* Ckll.; larvae of a species of Noctuidae on okra plants and leaves showing a 50 percent loss, and such well-known injurious insects as *Ligyrus tumulosus*, *Xylophanes tersa*, etc., about the electric light in the hotel.

St. Vincent, British West Indies

This island, being quite mountainous and heavily forested, provided much poorer roads and transportation facilities than most of the other West Indian islands. In spite of this handicap and torrential rains, however, the following points were visited on October 1–6, 1931: Wallilabou, Bellisle, Barrouallie, Mt. Wynne, Rutland Vale Village, the Buccament River Valley, Pembroke, Questells, Kingstown and vicinity, Calliaqua, the Marriaqua River Valley, Akers, the Yambu River Valley, Sans Souci, Colonaire, Georgetown, Waterloo, Orange Hill, Overland Village, and Owia.

There was a comparative scarcity of host fruits present at the time of this survey. Guavas were the most abundant fruit found, and the following were seen in small quantities: Yellow hog plums, breadfruit, bananas, cherimoyas, soursops, avocados, chili plums, golden apples, papayas, oranges, tangerines, limes, bitter almonds, nutmeg fruits, two species of figs, Governor plums, etc. Vegetables seen were tomatoes, peppers, okra, cucumbers, squashes, eddoes, sweetpotatoes, yams, etc. With the exception of guavas, limes, yellow hog plums, breadfruit, and bitter almonds, the hosts seen were very immature.

Very careful examination of products in the public market at Kingstown as well as in the field revealed no evidence of fruit-fly attack. A striking

feature was the enormous amount of sooty-mold fungi covering the fruit, forest, shade, and ornamental trees and seriously affecting their growth and fruit produced by them.

Among the important injurious insects other than fruit fly taken in St. Vincent were the following: *Xyleborus sacchari* Hopk., *Lachnopus*(?) or *Diaprepes* (?) sp., *Cleogonus* sp., etc., in seeds of angelin; *Lepidosaphes alba* Ckll. on stems of cassava; larvae of species of Pyralidae and Tortricidae in *Cassia* sp; *Leptoglossus vexillatus* Stal and species of Olethreutidae and Psychidae on guava; larvae of *Lachnopis*(?) or *Diaprepes*(?) and species of Blastobasidae in seeds of the Honduras mahogany; larvae of *Diaprepes*(?) sp. in seeds of mango; the scale insect, *Targionia hartii* on 5 percent of the yams; *Nezara viridula* on okra. At the electric light in the hotel room the following well-known pests were taken: *Ligyrus tumulosus*, *Cyclocephala vincentiae* Arr., *Nezara viridula*, *Achryson surinamum* L., *Leptostylus testaceus* Frol., *Cryptorhynchus* sp., *Xylophanes tersa*, etc. In all parts of the island there was considerable damage being done to agriculture by the grasshoppers, *Schistocerca impleta* Walk. and *S. pallens* Thunbg., etc.

Trinidad

A splendid network of highways made it possible from October 10 to November 4, 1931, to survey almost every section of Trinidad, including the northern mountainous range and the southwestern peninsula as well as the eastern coastal plain. The following important sections were visited: Port of Spain and vicinity, Carenage, Teteron, Magueripe Bay, Diego Martin, Greenhill, Maraval, Santa Cruz, San Juan, St. Augustine, the Maracas Valley, the Caura Valley, the Arima Valley, Valencia, Sangre Grande, Matura, Balandra Bay, Toco, Freeport, Couva, Montserrat, San Fernando, St. Madeleine, Hermitage, Union Hall, St. Marys, La Brea, Irois, Cedros, Chatham, Erin, Palo Seco, Siparia, Penal, Sadhoowa, Basseterre, Princes Town, Williamsville, Mayo, Caparo Junction, Flanigan Town, Brasso, Tabaquite, Rio Claro, Plaisance, Mayaro, St. Joseph, Cold Mine, and Upper Cunape.

This island had a larger quantity and greater variety of host fruits than any of the other West Indian islands visited. Named in the order of their abundance the following fruits were seen and examined: Bananas, plantains, limes, immature grapefruit and sweet oranges, cherimoyas, avocados, Governor plums, papayas, golden apples, chili plums, yellow hog plums, guavas, mangoes, sapodillas, mamey apples, Belle apples, barbadines, pods of three different species of *Inga*, peachnuts, pomeracs, soursops, wild figs, akee fruits, sour oranges, bitter almonds, bela fruit, nutmeg fruit, etc. Vegetables examined were melons, squashes, cucumbers, okra, eggplants, tomatoes, peppers, pigeon-peas, potatoes, sweetpotatoes, eddoes, yams, cabbages, wild cotton bolls, garlic, onions, etc.

Infestations of fruit flies were found at 45 different locations, distributed over every section of Trinidad. Larvae of *Anastrepha* spp. were taken in fruit of cattleya guavas, common guavas, chili plums, yellow hog plums, *Inga ingoides*, and sapodillas. Adults of *Anastrepha* spp. were collected on chili plums. *Cordia cylindristachya*, guavas, and sapodillas, and some were reared from larvae out of chili plums and yellow hog plums. Adults of *Anastrepha striata* Sch. were collected on guavas, oranges, *Inga ingoides*, and sapodillas, and reared from larvae out of guavas. Adults of *Anastrepha serpentina* Wd. were taken on sapodillas as well as reared from larvae taken in this same host. Adults of *A. fraterculus* Wd. were taken on guava, chili plum, and sapodilla. Adult specimens of *A. ethalea* Walk. were collected on guava and sapodilla, and one adult of *A. sylvicola* Knab was taken on guava also. The trypetid, *Hexachaeta amabilis* Lw., was taken on guava and sapodilla, *Acrotaenia* sp. on sapodilla, and *Blepharoneura poecilosoma* Sch. on a species of *Solanum*. The papaya fruit fly, *Toxotrypana curvicauda* Gerst., was found in and on papayas.

Among the more important injurious insects other than fruit flies found in Trinidad were the following: *Lydamis* sp. in and on fruits of *Annona montana;* larvae of Pyralidae in dried fruit of balata, Rheedia, calabash, and in pods of *Inga ingoides;* larvae of Blastobasidae in dried balata; *Conotrachelus dimidiatus* (?) Champ. in 10 percent of the cattleya guavas and 20 percent of the guavas; *Bephrata maculicollis* in 10 percent of the cherimoyas; *Stenoma anonella* Lepp. and other *Stenoma* spp. in 15 percent of the cherimoyas; a *Stenoma* sp. in guava, *I. setifera*, and *I. ingoides;* *Cicadella laudata* Walk. on

Cordia cylindristachya, cotton, and grapefruit; *Dysdercus fernaldi* Ballou on cotton; *Ceutorhynchus* sp. in 50 percent of the fruit of *Eugenia* sp.; *Anthonomus eugenii* Cano (?) in 15 percent of the fruit of *Eugenia* sp.; larvae of Cecidomyiidae in the fruit of fig and *I. ingoides;* larvae of *Papilio* sp. on leaves of grapefruit; *Leptoglossus gonagra* on guavas and *I. ingoides; L. stigma* on guavas; larvae of a species of Drepanidae on leaves of yellow hog plum; larvae of species of Curculionidae in 20 percent of the fruit of *I. setifera* and in 15 percent of that of *I. ingoides;* larvae of a species of Gracilariidae in pods of *I. setifera; Steirastoma breve* Sulz. on okra; *Ancylostomia stercorea* (?) Zell. in 50 percent of the pigeonpea pods; larvae of *Conotrachelus* sp. in 2 percent of the sapodillas; and *Tomaspis saccharina* Dist. on sugarcane, various grasses, on the collecting net, and in the automobile. About the electric light in the hotel specimens were taken of *Cyclocephala* sp., *Ligyrus* sp., etc.

Brazil

The authors arrived at Para, Brazil, by airplane from the island of Trinidad on November 5, 1931, and continued on to Rio de Janeiro by same, reaching that point on November 8. After making a survey of the State of Rio de Janeiro and the Federal District, a return trip was taken up the coast to Pernambuco by steamer, after which the survey was carried down to the State of Bahia and back to Rio de Janeiro. The next State visited was that of Minas Geraes, which was reached by railroad, and after its completion and a return to Rio de Janeiro the State of Sao Paulo was surveyed.

During the period of the survey in Brazil (November 5, 1931–January 1, 1932), fruit-fly infestations were found at 37 different locations. Three hundred and seventy-six adult fruit flies were collected on 30 different hosts; 1,698 larvae were taken from 22 different hosts, and there were reared out of 601 larvae taken from 11 of these different hosts 357 adults and 11 parasites.

To simplify the recording of data gathered during these investigations, each State in Brazil is treated separately.

State of Rio and Federal District of Rio de Janeiro

The localities visited November 8–29 in this section were as follows: The city of Rio de Janeiro and vicinity, Anchieta, Deodoro, Nilopolis, Nova Iguassu, Campo Grande, Iguassu, Petropolis, Correas, Bon Success, Nictheroy, Sao Goncalo, Alcantara, and Monte Formoso.

Among the fruits examined in the field and at public markets were the following: Natal and Pera oranges, sour oranges, limes, lemons, bananas, plantains, peaches, mangoes, surinam cherries, genips, sapodillas, Governor plums, star-apples, grumichamas, jaboticaba, breadfruit, jackfruit, figs, papayas, golden apples, mangosteens, immature grapefruit, navel oranges, guavas, avocados, Annonas, rose apples, etc. Vegetables seen were watermelons, cucumbers, peppers, tomatoes, eggplants, squashes, pumpkins, turnips, carrots, potatoes, sweetpotatoes, yams, radishes, cabbages, etc.

Fruit-fly infestations were found in each of the 14 localities visited as follows: Larvae of *Anastrepha* spp. in six fruits, viz golden apple, grumichama, jaboticaba, peach, sapodilla, and surinam cherry, and adults of *Anastrepha* spp. on the fruit and foliage of grumichama, Pera orange, and sapodilla. *Anastrepha distans* was also taken on Pera orange. Larvae and adults of *Ceratitis capitata* Wd. were found in and on Natal and Pera oranges, peaches, sour oranges, sour tangerines, and star-apples. Other fruit flies collected from fruits in this area included adult specimens of *Anastrepha grandis* Macq. on guava and Pera orange; *A. serpentina* Wd. on Natal orange and sapodilla and its larvae in the latter fruit; *A. fraterculus* Wd. on guava and Natal orange; *A. peruviana* Trns. on Natal orange; *A. distans* Hendel on guava and peach; *Hexachaeta eximia* Wd. on sour tangerine, and *Euaresta mexicana* VdW. on flowers of Cosmos. Some specimens of *A. consobrina* Lw. reared by local entomologists from passion fruit (*Passiflora edulis*) and *A. grandis* from guavas, also adults of *A. grandis* reared from oranges from the State of Rio Grande do Sul, were given to the authors.

Noteworthy among the injurious insects other than fruit flies taken in this State were the pink bollworm, *Pectinophora gossypiella*, and *Anomis* sp. (?) in and on cotton; larvae of *Diaphania* sp. in 2 percent of the cucumbers seen; larvae of *Gnorimoschema operculella* Zell. in eggplant; curculionid larvae in

grumichama and surinam cherries; larvae of Cryptorhynchini and *Gnorimoschema* sp. in 20 percent of the jaboticaba; larvae of *Gymnandrosoma aurantianum* Costa Lima in oranges, and the scales of *Coccus perlatus* Ckll. and *Hemichionaspis aspidistrae* Sign. *latus* Ckll. on the foliage of orange; larvae of *Conotrachelus* sp. in 1 percent of the peaches and in 5 to 10 percent of the sapodillas; larvae of *Gnorimoschema* sp. in 60 percent of the peppers; and both *Compsothrips* and *Holopothrips* spp. on pineapples, etc.

STATE OF PERNAMBUCO

Pernambuco was the most northerly and tropical State surveyed in Brazil. Field work was done from December 3 to 8 at Recife and vicinity, Jaboatao, Tapera, Morenos, and Victoria and vicinity.

Although it lies within the tropical zone, fruits and vegetables in this State were found to be comparatively scarce. The following fruits were seen in the field and public markets visited: Pineapples, mangoes, a few navel and Valencia oranges, sour oranges, limes, bananas, sapodillas, sapotas, passion fruits, guavas, coffee berries, cattleya guavas, sweet limes, cherimoyas, *Annonas*, etc. Vegetables seen were cucumbers, peppers, tomatoes, eggplants, watermelons, squashes, yams, sweetpotatoes, potatoes, carrots, lettuce, etc. Most of the fruit seen was immature and scarce.

Fruit-fly infestations were found in four different localities in Pernambuco. Adult specimens of *Anastrepha fraterculus* were taken on guavas; *A. peruviana* on pomerack; and *Anastrepha* sp. on guava and sour orange. One adult specimen of *Anastrepha serpentina* was observed on the fruit of sapodilla, and an adult of *Acrotaenia latipennis* Wd. collected on sour orange. Larvae of *Anastrepha* sp. were found in four different hosts as follows: Guava, pomerack, sapodilla, and sour orange.

Among the important injurious insects other than fruit flies taken in this State were the following: The pink bollworm, *Pectinophora gossypiella* in 50 percent of the cotton bolls; larvae of *Diaphania* sp. in 15 percent of the cucumbers; larvae of a species of *Stenoma* in 20 percent of the guavas; the stingless wasp, *Trigona ruficrus* Latr., which was doing considerable damage to the fruit of orange; and *Aleurothrixus floccosus* Mask. and *Coccus perlatus* infesting leaves of citrus. The larvae of *Gymnandrosoma aurantianum* were boring into the fruit of sour orange and tangerine. Specimens of *Leptoglossus gonagra* were collected at the electric lights, etc.

STATE OF ALAGOAS

A brief stop-over was made December 9 at the port of Maceio, Alagoas, where small quantities of some of the following products were purchased and examined: Pineapples, bananas, oranges, limes, mangoes, passion fruits, sapodillas, lemons, watermelons, peppers, tomatoes, potatoes, sweetpotatoes, yams, carrots, squashes, string beans, etc. No indications of fruit fly were seen in these, but 2 percent of the sweet peppers were found infested with *Gnorimoschema* sp.

STATE OF BAHIA

The following localities in Bahia were visited December 10–13: Salvador and vicinity, Boa Vista, Brotas, Matuta, Cabulla, and Sabeciro.

Fruits examined in the public markets and in the field included bananas, plantains, sour oranges, tangerines, surinam cherries, pineapples, mangoes, cashew fruits, sapodillas, papayas, limes, genips, grumichamas, immature navel oranges, avocados, guavas, *Annonas*, *Psidium araca*, rose apples, etc. Vegetables seen were tomatoes, peppers, eggplants, cucumbers, meloncillas, watermelons, okra, chayotes, squashes, potatoes, sweetpotatoes, and yams. Unfortunately the navel oranges here, which is their native home, were too immature at this season to be very attractive to fruit flies.

Fruit-fly infestations were found at seven different locations in Bahia. Larvae of *Anastrepha* sp. were taken in grumichamas, guavas, sour oranges, and surinam cherries; adults of *Anastrepha* sp. collected on grumichama and sapodilla; and *Anastrepha distans* on sour orange and surinam cherry. Adults of *A. serpentina* were taken on grumichama and sapodilla, and some specimens of same said to have been reared from the fruit of abio were given to the authors. Adults of *A. peruviana* were collected on surinam cherries, and

specimens of *Acrotaenia latipennis* taken on sapodilla and surinam cherries. Adults of *Ceratitis capitata*, said to have been reared from coffee berries in Bahia, were also presented to the authors.

Among the more important injurious insects other than fruit flies taken in this State were larvae of *Diaphania* sp. in 10 percent of the cucumbers, and the scale insects, *Lepidosaphes beckii* Newm. and *Pseudaonidia trilobitiformis* Green on the leaves of sour orange.

STATE OF MINAS GERAES

Only one district in Minas Geraes was visited December 18–20, viz, Vicossa. The following fruits were examined: Peaches, pears, plums, surinam cherries, figs, guavas, navel and Valencia oranges, lemons, papayas, citrons, immature quinces, grapefruit, apples, coffee berries, mangoes, *Annonas*, persimmons, and grapes. Vegetables seen were watermelons, cucumbers, squashes, etc.

Larvae of Trypetidae were found in guava, navel orange, peach, and surinam cherry. Adults of *Anastrepha* sp. were taken on peach, plum, and surinam cherry. Specimens of *Anastrepha* sp. which were reared from grapefruit and mango, also *Anastrepha grandis* reared from squash, and *A. fraterculus* from grapefruit, were given to the authors. Adults of *Ceratitis capitata* were taken on peach, plum, and surinam cherry, larvae of same were found in plums, and some adults of this fly, which had been reared from grapefruit and kumquat, were also presented to the authors.

Among the injurious insects other than fruit flies found in this State were adults of *Passalus* sp. at lights; the scales, *Lepidosaphes beckii* and *Aleurothrixus floccosus*, on orange leaves; and a cotton stainer, *Dysdercus peruvianus* Guer., on plum.

STATE OF SAO PAULO

The State of Sao Paulo was the last and most southerly one visited in Brazil, the following localities in same being covered December 23–31: The city of Sao Paulo and vicinity, Cotia, San Roque, Sorocaba, Juqueh, Louveira, Jundiahy, Campinas, Villa Americana, Santa Barbara, Piracicaba, Limeira, and Santos.

There was more host material available in this State at the time of this survey than in any other part of the Brazilian Republic. Immense plantations of coffee cover the rolling plateau land throughout the interior. Scattered about were also several commercial plantings of oranges, lemons, grapefruit, pears, peaches, apples, etc., in the immediate vicinity of the city of Sao Paulo. The following products were examined both in the field and at the public markets visited: Bananas, plantains, Valencia and navel oranges, sour oranges, grapefruit, lemons, limes, citrons, mangoes, guavas, pears, apples, quinces, peaches, plums, papayas, pricklypears, grapes, loquats, Barbados cherries, kei-apples, immature figs, persimmons, sapodillas, and cattleya guavas. Vegetables seen were watermelons, tomatoes, peppers, eggplants, squashes, cucumbers, sweetpotatoes, yams, yautias, etc.

Fruit-fly infestations were found at 11 different localities in this State. Larvae of Trypetidae were found in apple, Barbados cherry, citrad, guava, kei-apple, peach, pear, plum, quince, and sapodilla, while larvae of *Anastrepha* sp. were taken in apples and pears. Adults of *Anastrepha distans* were collected on apple, Barbados cherry, citrad, grape, guava, peach, persimmon, plum, and sapodilla. *Anastrepha* sp. was also collected on Barbados cherry. Adults of *A. serpentina* were taken on guava and of *A. grandis* on magnolia leaves, the latter also being reared from larvae taken out of watermelons. Adult specimens of *A. peruviana* were taken on Natal and navel oranges, persimmons, and plums. Adults of *A. distans* were taken on pear, while *A. punctata* Hendel was taken on plum and wild *Solanum*, *A. daciformis* Bezzi was collected on persimmon and plum, and *A. parallela* Wd. taken on sapodilla. Larvae of *Ceratitis capitata* were taken in coffee berries and peaches, while adults of this species were collected on apple, Barbados cherry, fig, grape, navel and Valencia oranges, peach, plum, and sapodilla. Adults of *Tomoplagia* sp. were taken on fig and quince; *Ensina peregrina* Lw. on guava; *Hexachaeta eximia* on persimmon; and both *Hexachaeta socialis* Wd. and *Xanthaciura insecta* Lw. on plum. Specimens of the following were presented to the authors by local entomologists: *Tomoplagia rudolphi* Lutz and Costa Lima from Aza Peixe gall; *Anastrepha* sp.

and *Ceratitis capitata* from coffee berries, and both *C. capitata* and *A. serpentina* from sapodillas.

Noteworthy among the injurious insects other than fruit flies taken in Sao Paulo were the following: *Metamasius hemipterus* in the automobile; *Anomala undulata* Melsh. at electric lights; *Stephanoderes hampei* Ferr. in coffee berries; *Conotrachelus* sp. in guavas and on plums; the scale, *Ceroplastes grandis* Hempel, on leaves and stems of persimmon; larvae of *Diaphania* sp. in squash, etc.

Uruguay

Excellent highways, particularly in the southern part of Uruguay, made it possible to carry on field work in the Departmentos of Montevideo, Canelones, Maldonado, San Jose, and Colonia from January 4 to 18, 1932. Among the localities visited in these were the following: Montevideo and vicinity, Paso de la Arenas, Manga, Penarol, Colon, Union, Independencia, Pantonoso, Pando, Atlantida, Mosquitos, Piriapolis, Repecho, San Carlos, Maldonado, Punta del Este, Isla Gorriti, Progreso, Canelones, San Lucia, San Jose, San Ecilda, Nueva Helvecia, Colonia Suizza, etc.

Fruits and vegetables were scarce at the time of the survey in Uruguay. Early varieties of peaches had already been harvested and the late varieties not yet matured, apricots and most of the cherries were finished, and apples, pears, and quinces were still immature. The following fruits were examined: Plums, peaches, pears, cherries, apples, apricots, oranges, lemons, grapes, nectarines, pomegranates, quinces, figs, persimmons, and watermelons. Vegetables seen were squashes, cucumbers, tomatoes, eggplants, peppers, green beans, potatoes, beets, carrots, turnips, cabbage, lettuce, radishes, etc. Sanitary conditions in the groves and vineyards were kept at an exceptionally high standard and clean cultivation was generally practiced, with very little of fallen fruit to be seen on the ground.

Fruit-fly infestations were found at five different locations in Uruguay, four of these being in the Department of Montevideo, while another was in the Department of Colonia. A total of 34 larvae of *Anastrepha* sp. were taken out of three hosts, viz., peaches, plums, and apricots. Five adult specimens of *Anastrepha* sp. were collected from the fruit and foliage of peach and plum, and one adult specimen of *Ceratitis capitata* was observed on the fruit of peach. In addition to the foregoing, the following also were taken: Adults of *Paracantha culta* Wd. on peach; *Camaromyia* sp. on plum; *Tephritis lindigi* Hendel on pomegranate; and the ortalid of fruit-fly habits, *Pterotaenia* (*Melieria*) *fasciata* Wd., on peach. Adult specimens of *Ceratitis capitata* reared from oranges and peaches were presented to the authors by the entomologist, A. T. Peluffo.

Among the injurious insects other than fruit flies taken in Uruguay were the following: The codling moth, *Carpocapsa pomonella* L. in apples, peaches, pears, and plums; *Gnorimoschema operculella* in eggplants; *Compsocerus equestris* Guer. on fig, peach, pear, and plum; *Trachyderes thoracicus* Oliv. on peach and pear; and the scale insects, *Aspidiotus perniciosus* Comst., and *Lecanium persicae* Fab. (?) on plum.

Republic of Chile

Due to its great length, Chile reaches from a tropical climate in its northern section to a frigid glacier area in the extreme south. The country may be divided into three general areas, viz, northern, central, and southern Chile, and the results obtained during this survey from January 25 to March 4, 1932, are recorded under those divisions, as follows:

northern chile

The following localities in this section were visited: Arica and vicinity, the Azapa Valley, Antofagasta and vicinity, Calama, the valley of San Pedro de Atacama, and Toconao. The aridity and barrenness of this part of Chile was very marked, vegetation occurring only along the river bottoms and adjacent irrigated lands.

Products examined were ripe grapes, figs, peaches, pears, pomegranates, mangoes, limes, immature olives, chili plums, pricklypears, guavas, oranges, *Inga* pods, quinces, cherimoyas, Lucuma fruits, apples, tomatoes, peppers, okra, etc.

As a result of this survey in northern Chile 1,524 larvae and puparia of *Anastrepha* sp. were taken in mangoes, peaches, and pears, and 166 adult specimens of *Anastrepha peruviana* collected on the leaves and fruit of 10 different hosts as follows: Fig, grape, guava, mango, olive, orange, peach, pear, *Solanum* sp., and yellow hog plum. One specimen of *Camaromyia bullans* Wd. was collected on apple; 16 of *Tomoplagia unifascia* Hendel on olive and orange, and 1 of *Tephritis fucata* F. on olive.

Noteworthy among the injurious insects other than fruit flies taken in this part of Chile were the larvae of a species of Blastobasidae in the fruit of fig, and larvae of species of Pyralidae and Epipaschiinae in many of the fruits of fig, mango, peach, pepper, and quince.

CENTRAL CHILE

This is by far the most important division of Chile, the largest fruit-growing farms being located here. With the exception of the Huasco Valley, nearly all of the other extensive fruit centers in this area were visited, as follows: Coquimbo, La Serena, the Elqui Valley including Vicuna and Rivadavia, Santiago and vicinity, San Bernardo, Santa Inez, Buin, Penaflor, Tobalaba, Colima, Lampa, Perejil, Quillota, Boco, Limache, San Francisco, Valparaiso and vicinity, Zorras, Salta, Quilpue, Villa Alemana, Marga Marga, Casa Blanca, La Cruz, etc. Fruits seen were peaches, nectarines, grapes, apples, pears, quinces, lemons, oranges, plums, apricots, limes, grapefruit, olives, mandarin oranges, cherries, figs, cherimoyas, both Honey Dew and watermelons, pomegranates, and papayas. Among the vegetables were potatoes, cucumbers, tomatoes, eggplants, squashes, pumpkins, peppers, carrots, cabbages, beets, corn, and sweetpotatoes.

Adult specimens of *Camaromyia bullans* were taken on the foliage of nectarine and potato, and of *Trypanea* (*Urellia*) *abstersa* Lw. on potato plant. Also the ortalid, *Pterotaenia fasciata* Wd., was taken on peach foliage, and is known to cause serious damage to cherries in Chile at times.

Among the injurious insects other than fruit flies taken in central Chile were the following: *Epicauta pilmus* Molina on alfalfa, peach, and potato; *Pantomorus godmani* Cr. on alfalfa, cherimoya, cherry, grape, peach, potato, and strawberry plants; *Carpocapsa pomonella* in apples, apricots, nectarines, pears, peaches, quinces, and walnuts; *Rhyephenes humeralis* Guer. on avocado twigs; larvae of a species of Olethreutidae in string beans; *Plutella maculipennis* Curt. on cabbage; *Eriocampoides limacina* Retz. on leaves of cherry and pear; *Leptoglossus chilensis* Spin. on leaves and fruit of fig, nectarine, peach, and plum; *Lophotus phaleratus* Er. on limb or *Lucuma* sp.; *Scolytus rugulosus* Ratz. on fruit and twigs of medlar and peach; *Heliothrips haemorrhoidalis* Bouche on persimmon leaves; *Gnorimoschema tuberosella* Busck in stems and tubers of potato; *Gnorimoschema operculella* on plants and in tubers of potato; *Heliothis obsoleta* in potato tubers and in soil near root of tomato plant; larvae of a species of Cossidae in stem of willow and lilac, etc.

SOUTHERN CHILE

A hurried trip was made February 26–29, into the apple and pear district of southern Chile in the Province of Bio-Bio, the sections of El Pino, Miraflores, and Angol being visited. The Instituto Agricola Bunster is located at the last-named place.

It was found that apples and pears of good commercial varieties were produced in fairly large quantities in this area and shipped to all parts of Chile as well as exported to other parts of South America and to Europe. The following products were also examined here: Grapes, pears, peaches, nectarines, plums, tangerines, immature oranges, grapefruit, persimmons, olives, lemons, tomatoes, peppers, eggplants, green peas, etc.

No evidence of fruit fly was seen in any of the foregoing examined, but D. S. Bullock, director of the Bunster Agricultural Institute, presented the authors with specimens of *Rhagoletis ochraspis* Wd., which he had taken in codling-moth traps in this vicinity, and it was later learned that this fly does considerable damage to tomatoes in Peru and is reported as also attacking green beans and peppers.

Among other injurious insects taken were the larvae of *Heliothis obsoleta* in peppers, etc.

Peru

The fruit-fly survey (Feb. 9–10 and Mar. 8–Apr. 6), in the Republic of Peru was started in the Tacna area in February 1932, when the neighboring districts of northern Chile were being surveyed, and taken up again on March 8 from Lima. In addition to the Tacna area in the southern part of Peru, the section from Ilo to the upper Moquegua Valley was covered in this part of the country, also the northern and central regions. This widespread field of operation was made possible by the excellent and economical airplane transportation available in Peru, and the fairly good system of roads extending from the coast to the mountains in the central region surrounding Lima and Callao.

Districts visited in the northern section were Chiclayo, Lambayeque, San Jose, Pimentel, Monsefu, and Farrinafe. In central Peru those visited were Lima and vicinity, Malambo, Magdalena, Miraflores, Surco, the Rimac Valley which includes La Molina, Chosica, Santa Eulalia, etc., and the Chillon Valley. Points visited in southern Peru included the Tacna Valley from Piedra Blanca to a section below the town of Tacna, and the Moquegua Valley, which includes the sections of Moquegua, Estuguina, and Samegua.

Grapes and pineapples were the only fruits grown on large extensive areas in the country, but there was quite a variety of tropical and subtropical fruits grown on small holdings. The following fruits were examined in the fields and public markets of Peru: Bananas, plantains, grapes, pineapples, coffee berries, apples, pears, quinces, peaches, guavas, cherimoyas, figs, soursops, loquats, pomegranates, mangoes, sapodillas, Lucuma fruits, avocados, rose apples, cattleya guavas, chili plums, Barbados cherries, Jamaica plums, apricots, oranges, lemons, limes, mamey apples, *Inga* pods, papayas, passion fruit, and palillos. Vegetables seen were melons, cucumbers, tomatoes, peppers, eggplants, tree tomatoes, string beans, potatoes, sweetpotatoes, onions, beets, carrots, turnips, cauliflower, lettuce, cabbage, etc.

Fruit-fly infestations were found at 19 different points, reaching from the Department of Lambayeque in the north to the Department of Tacna in the south inclusive. In the Rimac Valley near the city of Lima there was noted the heaviest infestation encountered in the entire survey of South America and the West Indies.

A total of 2,101 larvae and puparia of *Anastrepha* spp. were taken in the following 17 hosts: Apple, Barbados cherry, cherimoya, guava, cattleya guava, purple hog plums, *Inga feuillei*, loquat, *Lucuma* sp., mango, olive, palillo, peach, pear, pomegranate, rose apple, and quince. One hundred and fifty-six adults of *Anastrepha* spp. were collected on 15 hosts as follows: Apple, avocado, banana, bird excreta, caracucha (?), cattleya guava, cherimoya, common guava, grape, *Inga feuillei*, loquat, mango, pear, rose apple, and quince. *Anastrepha distans* was taken on pomegranate. In addition to these 87 adults of *Anastrepha* spp. were reared from larvae taken out of the following 7 fruits: Apple, Barbados cherry, cherimoya, guava, mango, peach, and quince.

One hundred and twenty-five adults of *A. serpentina* were collected on eight hosts as follows: Cherimoya, coffee, grape, guava, loquat, *Lucuma* sp., pear, and quince, as well as on collectors' hands and clothing, some adults of this species also being reared from larvae taken out of *Lucuma* sp.

Two hundred and forty-two adults of *A. peruviana* were collected on 25 fruits, etc., as follows: Apple, avocado, Barbados cherry, bitter almond, caracucha (?), cherimoya, coffee, fig, grape, guava, purple hog plum, loquat, *Lucuma* sp., mango, morning-glory, olive, orange, palillo, peach, pear, pomegranate, rose apple, quince, and soursop; also on collectors' hands and clothing.

Thirty-eight adults of *A. distans* were taken on seven hosts, viz, avocado, cherimoya, grape, guava, loquat, pomegranate, and mango.

Eight adults and 79 immature stages of *Rhagoletis ochraspis* were taken in tomatoes and on potato and tomato plants. This very destructive pest is also reported as attacking green beans and peppers in Peru.

In addition to the above there was also collected 1 specimen of *Baryplegma* sp., and 8 adults of the ortalid (with fruit-fly habits), *Pterotaenia* (*Melieria*) *fasciata* on potato plants.

Noteworthy among the injurious insects other than fruit flies taken in Peru were the following: *Carpocapsa pomonella* (?) in apples, peaches, and quinces; *Pagiocerus* sp. near *rimosus* Eich. in avocado seeds; larvae of species of Olethreutidae in string beans and *Inga feuillei;* larvae of *Diaphania* sp. in caihua

and cucumbers; larvae of species of Blastobasidae in Barbados cherries, cherimoyas, grapes, *Lucuma* sp., and rose apple; *Anomis* sp. on cotton bolls; larvae of species of Gracilariidae in Barbados cherries, *Inga feuillei*, *Inga* sp., and quince; larvae of species of Pyralidae (Epipaschiinae) in *I. feuillei* and peaches; Pyralidae (Phycitinae) in *I. feuillei; Heliothrips haemorrhoidalis* on leaves of pear; *Stephanoderes* sp. near *paraguayensis* Hopk. on rose apple; *Euscepes batatae* Waterhouse and *Euparia* sp. in sweetpotatoes; larvae of a species of noctuid, a *Conotrachelus* sp., and *Gnorimoschema lycopersicella* Busck, in tomatoes, etc.

STATEMENT OF FEDERAL PLANT QUARANTINES

The following tabular statement of the quarantines issued under the Plant Quarantine Act of August 20, 1912, as amended, indicating those that have been superseded or revoked, has been issued for the information of Federal and State plant quarantine officials, librarians, and others. The practice of assigning a new number to each revision of a quarantine, followed during the first few years of the enforcement of the act, has long since been discontinued.

Quarantine designation and number	Formerly no.—	Superseded by no.—	Revoked	Subject
F-1		7		White-pine blister rust.
D-2		13		Mediterranean fruit fly.
F-3				Potato wart.
D-4		10		Gypsy moth and brown-tail moth.
F-5				Mexican fruits.
D-6				Date palms.
F-7	1			White-pine blister rust.
F-8				Pink bollworm.
D-9		47		Hawaiian and Puerto Rican cotton, etc.
D-10	4	17		Gypsy moth and brown-tail moth.
F-11			Jan. 1, 1916	Powdery scab of potato.
F-12				Seeds of avocado or alligator pear.
D-13	2			Hawaiian fruits and vegetables.
D-14			Sept. 1, 1915	Powdery scab of potato.
F-15				Sugarcane.
D-16				Do.
D-17	4, 10	22		Gypsy moth and brown-tail moth.
D-18			Sept. 1, 1915	Powdery scab of potato.
F-19				Citrus nursery stock.
F-20				European pines.
F-21		24		Indian corn diseases.
D-22	4, 10, 17	25		Gypsy moth and brown-tail moth.
D-23		47		Hawaiian and Puerto Rican cotton, etc.
F-24	21			Indian corn diseases.
D-25	4, 10, 17, 22	27		Gypsy moth and brown-tail moth.
D-26		54		White-pine blister rust.
D-27	4, 10, 17, 22, 25	33		Gypsy moth and brown-tail moth.
F-28				Citrus fruits.
F-29				Sweetpotato and yam.
D-30				Do.
F-31				Banana plants.
D-32				Do.
D-33	4, 10, 17, 22, 25, 27	45		Gypsy moth and brown-tail moth.
F-34				Bamboo.
D-35		40		Japanese beetle.
D-36		43		European corn borer.
F-37				Nursery stock, plants, and seeds.
D-38				Black stem rust.
F-39		59		Flag smut.
D-40	35	48		Japanese beetle.
F-41				European corn borer.
F-42		41	Mar. 1, 1927[1]	Indian corn from Mexico.
D-43	36		July 15, 1932	European corn borer.
F-44			July 1, 1932	Stocks, cuttings, scions, and buds of fruits from the Orient (brought under quarantine 37).
D-45	4, 10, 17, 22, 25, 27, 33			Gypsy moth and brown-tail moth.
D-46		52		Pink bollworm.
D-47	23			Hawaiian and Puerto Rican cotton, etc.
D-48	35, 40			Japanese beetle.
F-49		56		Fruits and vegetables.

[1] Revocation of quarantine 42 covered in revision of regulations under quarantine 41, effective Mar. 1, 1927.

D=Domestic quarantines.
F=Foreign quarantines.

Quarantine designation and number	Formerly no.—	Superseded by no.—	Revoked	Subject
D-50			July 23, 1921	Mexican bean beetle.
D-51				United States quarantined to protect Hawaii.
D-52	46			Pink bollworm.
D-53				Satin moth.
D-54	26	63		White-pine blister rust.
F-55				Seed or paddy rice.
F-56				Fruits and vegetables.
F-57			July 1, 1928	Canadian Christmas trees.
D-58				Puerto Rican fruits and vegetables.
F-59	39			Flag smut.
D-60				Soil with plants from Hawaii and Puerto Rico.
D-61				Thurberia weevil.
D-62				Narcissus bulbs.
D-63	26, 54			White-pine blister rust.
D-64				Mexican fruit worm.
D-65				Woodgate rust.
D-66			Mar. 1, 1930	Asiatic beetle.
D-67			Mar. 1, 1933	Phony peach disease.
D-68			Nov. 15, 1930	Mediterranean fruit fly.
F-69				Plants and plant products used for packing material.
F-70				Dutch elm disease.

D=Domestic quarantines. F=Foreign quarantines.

PENALTIES IMPOSED FOR VIOLATIONS OF THE PLANT QUARANTINE ACT

According to reports received by the Bureau during the period July 1 to September 30, 1933, penalties have recently been imposed by the proper Federal authorities for violations of the Plant Quarantine Act, as follows:

EUROPEAN CORN-BORER QUARANTINE (DOMESTIC)

In the case of the *United States* v. *The Delaware, Lackawanna & Western Railroad Co.*, in the interstate transportation of five lots of green corn on the cob in violation of the regulations, the defendant pleaded guilty and was fined $20 on each count, a total of $100 (plant quarantine case no. 414).

JAPANESE-BEETLE QUARANTINE

In the case of the *United States* v. *Henry Rudner*, Rochester, N.Y., in the interstate transportation by motor truck of approximately 70 bushels of apples from a point in the regulated area to a point outside thereof without inspection and certification, the defendant pleaded guilty and was fined $50 (plant quarantine case no. 480).

MEDITERRANEAN FRUIT FLY AND MELON FLY QUARANTINE

In the case of the *United States* v. *F. Namias*, a member of the orchestra on the steamship *Sonoma*, of the Matson Line, arriving at San Francisco from Australia via Honolulu, on May 11, 1932, for bringing in two mangoes, the defendant pleaded guilty and was fined $10 (plant quarantine case no. 471).

QUARANTINES AFFECTING MEXICAN AND CANADIAN PRODUCTS

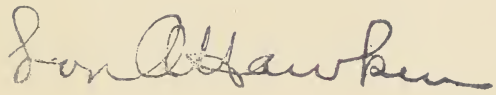
In the case of the United States versus the persons listed below, for attempting to smuggle in contraband plant material, the penalties indicated were imposed by the United States customs officials at the following ports:

Name	Port	Contraband	Penalty
A. B. Cole	Brownsville, Tex	3 mangoes	$5
Leonor Martinez	do	4 avocados with seed	[8] 5
Aurora Montalvo	do	5 avocados with seed, 3 pears	5
E. Claus	do	2 avocados with seed	5
F. L. Mendo	do	3 mangoes	5
Mrs. Earl Corder	do	1 mango	5
E. E. Burke	do	6 avocados with seed	5
J. D. Tompkins	do	do	5
W. O. Stovall	do	3 pomegranates	5
W. H. Crockett	do	8 quinces, 1 mango	5
Bigido Rodriquez	do	1 peach	5
S. E. Bayless	do	2 avocados with seed	5
Juana G. vde de Gerate	do	1 mango	5
Oridio Farias	do	6 mangoes	5
Victoria Longoria	do	3 guavas	5
I. D. Garza	do	1 quince	5
Bernardo Garcia	Laredo, Tex	20 avocados, 14 peaches	1
D. L. Perrin	Blaine, Wash	7 lily bulbs	5

[8] A fine of $5 was assessed against Leonor Martinez, but as she was unable to pay it the immigration authorities suspended her local crossing card for 30 days.

ORGANIZATION OF THE BUREAU OF PLANT QUARANTINE

A. S. Hoyt, *Acting Chief.*
B. Connor, *Business Manager.*
R. C. Althouse, *Information Officer.*

E. R. Sasscer, *in Charge Foreign Plant Quarantines.*
S. B. Fracker, *in Charge Domestic Plant Quarantines.*
Lon A. Hawkins, *in Charge Technological Division.*
A. F. Burgess, *in Field Charge Gypsy Moth and Brown-Tail Moth Quarantine (Headquarters, Greenfield, Mass.).*
L. H. Worthley, *in Field Charge Japanese Beetle Quarantine and European Corn Borer Project (Headquarters, Harrisburg, Pa.).*
R. E. McDonald, *in Field Charge Pink Bollworm and Thurberia Weevil Quarantines (Headquarters, San Antonio, Tex.).*
B. L. Boyden, *in Field Charge Date Scale Quarantine (Headquarters, Indio, Calif.).*
P. A. Hoidale, *in Field Charge Mexican Fruit Fly Quarantine (Headquarters, Harlingen, Tex.).*

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